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THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, CORK,

FOR THE

YEAR ENDING 31st MARCH, 1870.

Presented to both Houses of Parliament by Command of Her Majesty.

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1870.

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Reports from Commissioners

[C 197] Fifteenth Report of Her Majesty's Civil Service Commissioners, with Appendices

FIFTEENTH REPORT

OF

HER MAJESTY'S CIVIL SERVICE COMMISSIONERS,

TOGETHER WITH

APPENDICES.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
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ORDERS OF HER MAJESTY IN COUNCIL

REGULATING THE

ADMISSION OF PERSONS TO THE CIVIL SERVICE OF THE CROWN.

At the Court at Buckingham Palace the 21st day of May 1855 ;

PRESENT :

THE QUEEN'S MOST EXCELLENT MAJESTY IN COUNCIL.

WHEREAS it is expedient to make provision for testing, according to fixed rules, the qualifications of the young men who may from time to time be proposed to be appointed to the junior situations in any of Her Majesty's Civil Establishments.

Now therefore Her Majesty, by and with the advice and consent of Her Privy Council, doth order, and it is hereby ordered, that the Right Honourable Sir Edward Ryan, Assistant Comptroller General of the Exchequer, John George Shaw Lefevre, Esquire, Companion of the Bath, Clerk Assistant to the House of Lords, and Edward Romilly, Esquire, Chairman of the Board of Audit, or such other persons as Her Majesty may from time to time approve in the stead of them or any of them, shall be Commissioners for conducting the examination of the young men so proposed to be appointed to any of the junior situations in the civil establishments as aforesaid, and shall hold their offices during the pleasure of Her Majesty, and shall have power, subject to the approval of the Commissioners of Her Majesty's Treasury, to appoint from time to time such assistant examiners and others as may be required to assist them in the performance of the duties herein-after assigned to them.

And it is hereby ordered, that the Commissioners of Her Majesty's Treasury do prepare and submit to Parliament an estimate for the remuneration of a secretary to the said Commissioners, and of such examiners and others as may be required to assist in the performance of their duties.

And it is hereby ordered, that all such young men as may be proposed to be appointed to any junior situation in any department of the Civil Service shall, before they are admitted to probation, be examined by or under the directions of the said Commissioners, and shall receive from them a certificate of qualification for such situation.

And it shall be the duty of the Commissioners in respect of every such candidate, before granting any such certificate as aforesaid,

1st. To ascertain that the candidate is within the limits of age prescribed in the department to which he desires to be admitted ;

2d. To ascertain that the candidate is free from any physical defect or disease which would be likely to interfere with the proper discharge of his duties;

3d. To ascertain that the character of the candidate is such as to qualify him for public employment; and,

4th. To ascertain that the candidate possesses the requisite knowledge and ability for the proper discharge of his official duties.

The rules applicable to each department under each of the above heads should be settled, with the assistance of the Commissioners, according to the discretion of the chief authorities of the department; but, except that candidates for admission to any of the junior situations in any branch of the Civil Service will be required to obtain certificates of qualification as aforesaid, such Examining Board shall not make any alteration in respect to the nomination or appointment of candidates by those who are or may be charged with the duty of nomination and appointment.

After the candidate has passed his examination, and received his certificate of qualification from the Commissioners, he shall enter on a period of probation, during which his conduct and capacity in the transaction of business shall be subjected to such tests as may be determined by the chief of the department for which he is intended, and he shall not be finally appointed to the public service unless upon satisfactory proofs of his fitness being furnished to the chief of the department after six months probation.

And it is lastly hereby ordered, that in case the chief of any department considers it desirable to appoint to any situation for which there are no prescribed limits of age a person of mature age having acquired special qualifications for the appointment in other pursuits, such person shall not in virtue of this order be required to obtain any certificate from the said Commissioners in order to obtaining such appointment, but the chief of the department shall cause the appointment of any person not previously examined to be formally recorded as having been made on account of special qualifications.

(Signed) WM. L. BATHURST.

Council Office,
22nd May 1855.

At the Court at Osborne House, Isle of Wight, the 26th day of April 1862.

PRESENT:

THE QUEEN'S MOST EXCELLENT MAJESTY IN COUNCIL.

WHEREAS by an Order made by the Queen's most Excellent Majesty in Council, on the 21st day of May 1855, Her Majesty, by and with the advice of Her said Council, did order that the Right Honourable Sir Edward Ryan, John George Shaw Lefevre, Esquire, (now Sir John George Shaw Lefevre, Knight Commander of the Bath,) and Edward Romilly, Esquire, or such other persons as Her Majesty should from time to time approve in the stead of them or any of them, should be Commissioners for conducting the examination of the young men proposed to be appointed to any of the junior situations in Her Majesty's Civil Establishments, and should hold their offices at the pleasure of Her Majesty, and should have power, subject to the approval of the Commissioners of Her Majesty's Treasury, to appoint from time to time such assistant examiners and others as might be required to assist them in the performance of the duties by the said Order assigned to them.

And whereas since the date of the said Order the said Edward Romilly and Sir John George Shaw Lefevre have severally resigned their said offices of Commissioners to which they were so appointed as aforesaid: And whereas it is deemed expedient that the said Sir Edward Ryan should be appointed First Commissioner for the purpose aforesaid, and that the Right Honourable Sir Edmund Walker Head, Baronet, Knight Commander of the Bath, and the Honourable Edward Turner Boyd Twisleton, should be appointed Commissioners in the place and stead of the said Sir John George Shaw Lefevre and Edward Romilly, Esquire; and further, that the said Commissioners should have power, subject to the approval of the Commissioners of Her Majesty's Treasury, to appoint from time to time a secretary and such assistant examiners and others as may be required to assist them in the performance of their duties.

Now, therefore, Her Majesty, by and with the advice of Her Privy Council, doth order, and it is hereby ordered, that the said Sir Edward Ryan, Sir Edmund Walker Head, and the Honourable Edward Turner Boyd Twisleton, or such other persons as Her Majesty may from time to time approve in the stead of them or any of them, shall be Commissioners, and shall hold their offices during the pleasure of Her Majesty, for the purpose aforesaid, the said Sir Edward Ryan being the First Commissioner; and that the said Sir Edward Ryan, Sir Edmund Walker Head, and the Honourable Edward Turner Boyd Twisleton shall have power, subject to the approval of the Commissioners of Her Majesty's Treasury, to appoint from time to time a secretary and such assistant examiners and others as

may be required to assist them in the performance of their duties, and further shall have all powers and authorities given by the said Order.

And it is hereby further ordered, that the Commissioners of Her Majesty's Treasury do prepare and submit to Parliament an estimate for the remuneration of the First Commissioner aforesaid.

And Her Majesty, by and with the advice aforesaid, doth confirm the said Order in all respects, so far as the same is not hereby altered.

(Signed) EDMUND HARRISON.

At the Court at Osborne House, Isle of Wight, the 5th day of February 1870.

PRESENT:

THE QUEEN'S MOST EXCELLENT MAJESTY IN COUNCIL.

WHEREAS by an Order made by the Queen's most Excellent Majesty in Council, on the 21st day of May 1855, Her Majesty, by and with the advice of Her said Council, did order that the Right Hon. Sir Edward Ryan, John George Shaw Lefevre, Esq. (now Sir John George Shaw Lefevre, Knight Commander of the Bath), and Edward Romilly, Esq., or such other persons as Her Majesty should from time to time approve, in the stead of them or any of them, should be Commissioners for conducting the examination of the young men proposed to be appointed to any of the junior situations in any of Her Majesty's Civil Establishments, and should hold their offices at the pleasure of Her Majesty.

And whereas by another Order made by Her Majesty in Council, on the 26th day of April 1862, Her Majesty, by and with the advice of Her Privy Council, did order that the Right Hon. Sir Edmund Walker Head, Bart., and the Hon. Edward Turner Boyd Twisleton should be appointed Commissioners in the place and stead of the said Sir John George Shaw Lefevre and Edward Romilly, Esq.

And whereas, since the date of the said last-mentioned Order, the said Sir Edmund Walker Head has departed this life, and the said Hon. Edward Turner Boyd Twisleton has resigned the said office of Commissioner, and whereas it is deemed expedient that George Webbe Dasent, Esq., Doctor of Civil Law, should be appointed Commissioner in the place and stead of the said Hon. Edward Turner Boyd Twisleton.

Now, therefore, Her Majesty, by and with the advice of Her Privy Council, doth order, and it is hereby ordered, that the said Sir Edward Ryan and George Webbe Dasent, or such other persons as Her Majesty may from time to time approve in the stead of them, or either of them, shall be Commissioners, and

shall hold their offices during the pleasure of Her Majesty for the purpose aforesaid, the said Sir Edward Ryan being the first Commissioner, and the said George Webbe Dasent being the second Commissioner.

And it is further ordered that the Commissioners of Her Majesty's Treasury do prepare and submit to Parliament, an estimate for the remuneration of the second Commissioner aforesaid.

And Her Majesty, by and with the advice aforesaid, doth confirm the said Orders in all respects, so far as the same are not hereby altered.

(Signed) ARTHUR HELPS.

At the Court at Balmoral, the 4th day of June 1870.

PRESENT:

THE QUEEN'S MOST EXCELLENT MAJESTY IN COUNCIL.

WHEREAS it is expedient to continue, with certain amendments, the existing provision for testing according to fixed rules the qualifications of persons who may from time to time be proposed to be appointed, either permanently or temporarily, to any situation or employment in any of Her Majesty's Civil Establishments, except as herein-after mentioned:

I. Now, therefore, Her Majesty, by and with the advice of Her Privy Council, doth order, and it is hereby ordered, that the Right Hon. Sir Edward Ryan, now First Commissioner under Her Majesty's Orders in Council of the 21st of May 1855, and the 26th of April 1862, and George Webbe Dasent, Esq., Doctor of Civil Law, or such other persons as Her Majesty may from time to time approve in the stead of them, or either of them, shall be Her Majesty's Civil Service Commissioners for testing the qualifications of the persons so proposed to be appointed to any situation or employment in the Civil Establishments as aforesaid, and shall hold their offices during the pleasure of Her Majesty; the said Sir Edward Ryan continuing to be the First Commissioner, and the said George Webbe Dasent being the Second Commissioner; and shall have power, subject to the approval of the Commissioners of Her Majesty's Treasury, to appoint from time to time such assistant examiners and others as may be required to assist them in the performance of the duties herein-after assigned to them.

II. And it is hereby ordered, that (except as may be excepted under clause VII. of this Order, and in the Schedule marked B. annexed hereto) the qualifications of all such persons as may be proposed to be appointed, either permanently or temporarily, to any situation or employment in any department of the Civil Service shall, before they are employed, be tested by or under the directions of the said Commissioners; and no person (except as aforesaid) shall be employed in any department of the Civil

Service until he shall have been reported by the said Commissioners to be qualified to be admitted on probation to such situation or employment.

III. No person shall be appointed to any office or employment in any of Her Majesty's Civil Establishments until he shall be reported by the said Commissioners to have satisfied them—

1st. That he is within the limits of age prescribed for the situation or employment to which he desires to be admitted.

2nd. That he is free from any physical defect or disease which would be likely to interfere with the proper discharge of his duties.

3rd. That his character is such as to qualify him for such situation or employment; and

4th. That he possesses the requisite knowledge and ability to enter on the discharge of his official duties.

IV. The rules applicable to each department, under each of the above heads, shall be settled, subject to the approval of the Commissioners of Her Majesty's Treasury, by the said Civil Service Commissioners and the chief authorities of the department.

V. Except as herein-after is excepted, all appointments which it may be necessary to make, after the 31st day of August next, to any of the situations included or to be included in Schedule A. to this Order annexed, shall be made by means of competitive examinations, according to regulations to be from time to time framed by the said Civil Service Commissioners, and approved by the Commissioners of Her Majesty's Treasury, open to all persons (of the requisite age, health, character, and other qualifications prescribed in the said regulations) who may be desirous of attending the same, subject to the payment of such fees as the said Civil Service Commissioners, with the consent of the said Commissioners of Her Majesty's Treasury, may from time to time require; such examinations to be held at such periods, and for such situations, or groups of situations in the same or different departments, as the said Civil Service Commissioners, with the approval of the said Commissioners of Her Majesty's Treasury, shall from time to time determine, and to have reference either to the vacancies existing at the time of the examinations respectively, or to the number which may be estimated to occur within any period not exceeding six months after the commencement of the examinations, as the said Civil Service Commissioners, after consultation with the chief authorities of the various departments, and with the approval of the said Commissioners of Her Majesty's Treasury, may deem expedient.

VI. After the candidate, reported as aforesaid by the Commissioners, has been appointed to an office or employment, he shall enter on a period of probation, during which his conduct and capacity in the transaction of business shall be subjected to such tests as may be determined by the chief of the department to which he is attached, and he shall not remain in the public service after six months from the date of his appointment, unless

satisfactory proofs of his fitness shall have been furnished to the chief of such department, and a certificate of his qualification shall have been issued by the Civil Service Commissioners. A formal record of the particulars and of the result of such probation, signed by the chief of the department, shall be furnished to the Civil Service Commissioners, and filed in their office, and they shall thereupon, and not sooner, if such record should be satisfactory, issue their certificate of the candidate's qualification for employment. The candidate after, no less than before, the issue of such certificate shall hold his office at the pleasure of the chief of his department.

VII. In case the chief of a department to which a situation belongs, and the Lords of the Treasury shall consider that the qualifications in respect of knowledge and ability deemed requisite for such situation are wholly or in part professional, or otherwise peculiar, and not ordinarily to be acquired in the Civil Service, and the said chief of the department shall propose to appoint thereto a person who has acquired such qualifications in other pursuits, or in case the said chief of the department and the Lords of the Treasury shall consider that, either for the purpose of facilitating transfers from the Redundant List, or for other reason, it would be for the public interest that examination should be wholly or partially dispensed with, the Civil Service Commissioners may dispense with examination, wholly or partially, and may grant their certificate of qualification upon evidence satisfactory to them that the said person possesses the requisite knowledge and ability, and is duly qualified in respect of age, health, and character.

VIII. And it is lastly hereby ordered, that the situations mentioned or referred to in the Schedule marked B., hereto annexed, shall be wholly excepted from the operation of this Order, provided that the chief authorities of any department, with the concurrence of the Lords of the Treasury, by notice in the London Gazette, may from time to time add situations to either of the said schedules, or withdraw situations therefrom, or restore thereto situations which may have been withdrawn.

EDMUND HARRISON.

SCHEDULE A.

DEPARTMENTS to which the principle of Open Competition, provided in Clause V. of this Order, is to be applied.

Treasury.	War Office.
Privy Council Office.	Admiralty.
Colonial Office.	Board of Trade.
India Office.	Poor Law Board.

Privy Seal Office.
Customs.
Inland Revenue.
Paymaster-General's Department.
Civil Service Commission.
General Post Office (Clerks in Secretary's Department).
Mint.
Exchequer and Audit Department.
General Register Office.
Office of Works.
Office of Woods, &c.
National Debt Office.
Public Record Office.
Stationery Office.
Charity Commission.
Education Office.
Registry of Designs.
Registry of Seamen.
Registry of Joint Stock Companies.
Emigration Office.
University of London.
Science and Art Department.
London Gazette Office.
County Courts Judgments Registry.
Office of Examiners of Criminal Law Accounts.
Queen's and Lord Treasurer's Remembrancer's Office (Scotland).
Chief Secretary's Office (Ireland).
Constabulary Office (Ireland).
Directors of Convict Prisons' Office (Ireland).
Office of Inspectors-General of Prisons (Ireland).
General Register Office (Ireland).
Registrar of Petty Sessions Clerks' Office (Ireland).
Inspectors of Lunatic Asylums' Office (Ireland).
Registry of Deeds (Ireland).
Public Works Office (Ireland).
Dublin Metropolitan Police Office.
Divisional Justices' Offices, Dublin.

SCHEDULE B.

SITUATIONS altogether excepted from the operation of this Order.

1. All situations to which the holder is appointed directly by the Crown.

2. All situations included in any Order or Warrant made by the Commissioners of the Treasury under Section 4 of the Superannuation Act, 1859.

3. All situations which are filled, in the customary course of promotion, by persons previously serving in the same department.

FIFTEENTH REPORT.

We, Your Majesty's Civil Service Commissioners, humbly offer to Your Majesty the following Report:—

By the order of Your Majesty in Council, dated the 4th of June 1870, important changes were introduced in the method of filling appointments in the Civil Service; but as the most material of these changes did not come into operation until after the period to which this Report refers, we have thought it better to defer to another occasion any detailed account of the new system, and to confine ourselves for the present to a brief statistical summary of our proceedings up to the 30th day of June last.

The total number of candidates whose names have appeared upon our lists from the first constitution of the Commission in May 1855, up to the 30th of June 1870, has been 71,971.* By far the greater part of these, *i.e.*, 60,486, were candidates for situations for which, under Your Majesty's Orders in Council, a Certificate of Qualification is required; but 6,690 of them were examined for other situations in the Home Civil Service for which certificates have not been considered to be necessary; 4,607 were competitors for the Civil Service of India; and 188 were candidates for admission to the Army under arrangements which will be explained below.

We propose to speak in the first place of examinations held under the Orders in Council for situations in the Home Civil Service.

The gross total of candidates for such situations has been, as above stated, 60,486, including 5,495 who were sent to us for Preliminary Test Examination, with a view to their being nominated afterwards to compete. But as 1,234 nominations were cancelled after we had received them, and 3,566 nominees either absented themselves altogether, or withdrew without completing their examination, or have not yet presented themselves, the net total of cases which have come before us for decision has been 55,686. In 34,007 of these cases Certificates of Qualification have been granted under the Order in Council of 21st May 1855, while 192 persons have been reported qualified under the Order of 4th June 1870, and 2,556 have been reported as having passed the Preliminary Test Examination before mentioned. It must not, however, be understood that the remaining candidates,

* In this and similar statements a candidate, whose name has appeared twice (or more), is counted as two (or more) candidates.

18,931 in number, have all been pronounced disqualified; for in the cases of 7,528 persons, who having been nominated for competitive examinations were not among the successful competitors, the question of absolute qualification did not arise. The total number of candidates whom we have rejected as disqualified has been 11,403. Out of this number 1,257 were not within the prescribed limits of age; 647 proved to be physically incapacitated for the discharge of the duties of the situations to which they were proposed to be appointed; 709 failed to produce satisfactory evidence that their character was such as to qualify them for public employment. The remainder, 8,790, represents the whole number of persons whom we have rejected during these fifteen years as deficient in knowledge and ability; and in this number are included 2,418 who failed to pass the Preliminary Test Examination.

Out of the number of those who were rejected as deficient in knowledge and ability a very small proportion failed solely or chiefly in what may be called the scholastic portions of the examination. If the subjects of examination be divided into two classes, one including reading, spelling, handwriting, arithmetic, and, in the case of each department, the subjects specially connected with the practical work of that office, the other comprising those which are prescribed as tests of general intelligence and cultivation, the number of rejections caused by failure in the latter class of subjects only has been 289, as against 8,501 cases of failure in the former class.

The numbers above given include nominations to all kinds of situations under the Orders in Council, inferior as well as superior. If a division be made of these into two classes, viz., (1) clerkships and higher positions, and (2) the residue, consisting for the most part of out-door offices, but comprising also the situations of office-keepers, messengers, and similar in-door appointments, the account of certificates granted and refused will stand as follows:—

In the Period from 21st May 1855 to June 30th 1870.		Superior Situations.		Inferior Situations.		Total.
Certificates granted - -			11,102		22,905	34,007
Candidates reported qualified under O. in C. of 4th June 1870 -			54		138	192
Preliminary Test: Candidates reported qualified - -			2,556		—	2,556
Certificates refused.	On account of Age -	465	4,705	792	4,280	8,985
	„ Health	136		511		
	„ Character	136		573		
	„ Knowledge and Ability.	3,968		2,404		
Preliminary Test: Candidates reported not qualified - -			2,418		—	2,418
Total - -			20,835		27,323	48,158

Subdividing again, according to the subjects of failure, the rejections on account of deficient knowledge and ability, we have :—

In the Period from 21st May 1855 to June 30th 1870.	Superior Situations.	Inferior Situations.	Total.
Failures in Elementary and Practical Subjects - - - -	6,097	2,404	8,501
Failures in Scholastic Subjects alone -	289	None.	289

In the year ending June 30th 1870, to which this Report more especially refers, the total number of cases dealt with has been 5,844, the annual average for the fifteen years being 4,798. The total of 5,844 was made up as follows :—

(A.) Home Civil Service* - - -	5,050
(B.) Army Entrance Examinations - -	188
(C.) Civil Service of India - - -	606
	5,844

(A.) Home Civil Service.

Out of the number of 5,050 cases connected with the Home Civil Service 364 had reference to appointments for which Certificates of Qualification are not required under the Orders in Council; and of the remainder 628 did not come before us for any decision, 89 nominations having been cancelled after we had received them, and 539 candidates having either not presented themselves for examination, or not completed it. With regard to the residue, amounting to 4,058, the account of Certificates granted and refused is as follows:—

In the Year from July 1st 1869 to June 30th 1870.		Superior Situations.		Inferior Situations.		Total.
Certificates granted - - - -		611		1,887		2,498
Candidates reported qualified under O. in C. of 4th June 1870 - - -		54		138		192
Preliminary Test: Candidates reported qualified - - - -		128		—		128
Certificates refused.	On account of Age -	23	299	68	411	710
	" Health -	8		77		
	" Character	4		44		
	" Knowledge and Ability.	264		222		
Preliminary Test: Candidates reported not qualified - - -		135		—		135
Unsuccessful Competitors - -		392		3		395
Total - -		1,619		2,439		4,058

* Under this head are included, for convenience of arrangement, some situations which do not strictly belong to the Home Service, *e.g.* Writerships in Ceylon and the Straits Settlements.

The following tabular statements will show to what extent the method of competition, whether open or limited, has actually been applied during the year ending June 30th 1870 :—

Certificates granted and Candidates reported qualified under O. in C. of 4 June 1870.	Superior.	Inferior.	Total.
After Open Competition - -	2	—	2
After Limited Competition - -	110	1	111
Without Competition - - -	553	2,024	2,577
Total - -	665	2,025	2,690

The two persons who appear in the foregoing Table as having been admitted after Open Competition were examined for Writing Clerkships in the Probate and Divorce Courts, England. The number of competitors examined was 108, of whom 7 were found to be qualified in all the subjects prescribed for the situation.

As has been stated above, 364 of the cases which came before us in the course of the year had reference to appointments for which Certificates of Qualification are not required. Subjoined is a list of some of the examinations conducted by us under this head.

ADMIRALTY :
Candidates for situations of Engineer Students - 111
Dockyard and Victualling Yard Artificers for promotion - - - - - - 51

ROYAL IRISH CONSTABULARY :
Candidates for Cadetships - - - - 30

EDUCATION OFFICE :
Examiners and Inspectors of Schools (examined as to Health only) - - - - - 2

COUNTY SURVEYORS IN IRELAND :
(Examined in Open Competition under Act of 25 and 26 Vict. cap. 106.) - - - - 35

METROPOLITAN POLICE :
Constables and Sergeants for promotion - - 134

The following list contains the names of the gentlemen who have assisted us during the past year in conducting our ordinary examinations :—

Permanent Examiners.

Edward Headlam, Esq., M.A., late Fellow of St. John's College, Cambridge.
Edward Poste, Esq., M.A., Fellow of Oriel College, Oxford.

Occasional Examiners.

For General Subjects.

J. Roberts, Esq., M.A., Fellow of Magdalene College, Cambridge.
C. Knight Watson, Esq., M.A., F.S.A., Trinity College, Cambridge.

For Special Subjects.

French.—M. Dupont.
German.—Rev. Dr. Walbaum; Rev. Dr. Schöll.
Italian.—Signor Pistrucci; Signor De Tivoli.
Spanish.—Senor M. Vives.
Portuguese.—Senhor Monteiro.
Arabic.—Col. J. W. J. Ouseley.
Law.—T. C. Sandars, Esq., M.A., Reader on Constitutional Law and Legal History to the Inns of Court; F. Lushington, Esq., M.A.; H. Davey, Esq., M.A.
Natural Science.—Professor Liveing.
Practical Geometry, Surveying, &c.—Col. Fisher, R.E., C.B.; Captain Seddon, R.E.; Lieut. Cunningham, R.E.; C. P. Colton, Esq., C.E.
Mining.—W. Warrington Smyth, Esq.

(B.) Army Entrance Examinations.

Early in the year we received a communication from the Secretary of State for War, stating that in pursuance of the Report of the Royal Commission on Military Education, which recommended that the entrance examinations for the Royal Military College at Sandhurst, and the Royal Military Academy at Woolwich, and also the examinations for admission into the army by Direct Commissions, being examinations into which no military subjects enter, and which are merely intended to test the general knowledge of the candidates, should be conducted under our superintendence, Mr. Cardwell proposed to transfer to us for the future the duties connected with these examinations so far as the educational test is concerned. All communications with regard to certificates of age and moral character would be dealt with, it was said, in the Military Secretary's Department, and the necessary information sent to the Commissioners, and no responsibility on these points, or for the Medical Examination, would rest with us.

In pursuance of this arrangement, 180 candidates for Direct Commissions were examined in May last, under our directions, according to the regulations which had been in force for some years. In the conduct of this examination, as it appeared very undesirable at once to alter a system which had grown up during a series of years, we deemed ourselves fortunate in being able to continue for this occasion the services of the under-mentioned gentlemen, whose experience in previous examinations of the same kind rendered their co-operation especially valuable.

English.—W. Stebbing, Esq.
History.—W. Stebbing, Esq.
Geography.—W. Stebbing, Esq.
Latin.—Rev. Professor Rawlinson.
Greek.—Rev. Professor Rawlinson.
French.—M. Dupont.
German.—Professor Max Müller.
Experimental Sciences.—Professor Liveing.
Natural Sciences.—H. W. Bristow, Esq.
Mathematics.—Rev. W. N. Griffin.
Drawing.—Lieut.-Colonel Scott, R.E.

The correspondence which took place between the Secretary of State for War and ourselves on the subject of these examinations is given in the Appendix to this Report, in which will also be found details respecting the examination above mentioned, together with similar particulars respecting an Open Competition of 180 persons for admission to the Royal Military Academy at Woolwich, and a second examination of 607 candidates for Direct Commissions.

(C.) Civil Service of India.

The Annual Open Competition for appointments in the Civil Service of India took place in April 1870, when 332 candidates presented themselves, and were examined by the gentlemen named in the following list:—

English Language, Literature, History, and Composition. — M. Arnold, Esq.; L. H. Courtney, Esq.; J. G. Fitch, Esq.; C. H. Pearson, Esq.; W. Stebbing, Esq.; C. Knight Watson, Esq.
Greek and Latin Languages, &c.—Rev. Lewis Campbell; Rev. Osborne Gordon; Rev. Dr. Kennedy; Rev. G. Marshall; Rev. J. B. Mayor; F. A. Paley, Esq.
French Language, &c.—M. Bué; M. Dupont; Professor Karcher.
German Language, &c.—Dr. Althaus.
Italian Language, &c.—Signor De Tivoli.
Mathematics. — Rev. B. Price; E. J. Routh, Esq.; Rev. R. Townsend.
Chemistry, Electricity, and Magnetism.—Professor Liveing.
Geology and Mineralogy.—Professor Morris.
Zoology.—Dr. M. Foster.
Botany.—Dr. T. Thomson.
Moral Sciences.—A. Bain, Esq.; Sir A. Grant, Bart.
Sanskrit Language, &c.—E. B. Cowell, Esq.
Arabic Language, &c.—Colonel J. W. J. Ouseley.

As the result of this competition, the details of which are appended to our Report, 40 candidates were selected, who are now undergoing the special training required to qualify them for the service.

In June 1870 the candidates selected in 1868 went through their "final examination." Detailed results of this examination are given in the Appendix.

All which we humbly submit to Your Majesty's most gracious consideration.

Witness our hands and seals this Twenty-seventh day of July One thousand eight hundred and seventy.

EDWARD RYAN. (L.S.)
GEORGE WEBBE DASENT. (L.S.)

Appendix I.

STATISTICAL TABLES, &c.

Relating to the Home Civil Service.

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TABLE A.—LIMITS of AGE prescribed for the various DEPARTMENTS.

[These, under the Order in Council of 4th June 1870, are to be settled, subject to the approval of the Commissioners of Her Majesty's Treasury, by the Civil Service Commissioners and the chief authorities of each department.

They will be published in a separate form as soon as the necessary arrangements have been completed.]

TABLE B.—SUBJECTS of EXAMINATION prescribed for the various DEPARTMENTS.

[These, under the Order in Council of 4th June 1870, are to be settled, subject to the approval of the Commissioners of Her Majesty's Treasury, by the Civil Service Commissioners and the chief authorities of each department.

They will be published in a separate form as soon as the necessary arrangements have been completed.]

TABLE C.—Showing for each DEPARTMENT the NUMBER of NOMINATIONS, &c. during the year from July 1, 1869, to June 30, 1870, and the manner in which the cases decided in the same period have been disposed of.

DEPARTMENT AND CLASS OF SITUATION.	Nominations, &c. (not including those to Test Examinations).			Number of Nominees, &c. (not including those to Test Examinations),											Test Examinations.					
																Number of Nominees.				
																			Examined.	
	Made in 1869-70.	Made in 1868-9, but not disposed of in that year.	Total.	Who declined, withdrew, or were absent.	Who were not within the limits of AGE.	Whose HEALTH was not satisfactory.	Whose CHARACTER was not satisfactory.	Whose Nominations were cancelled by Departments for reasons not mentioned.	Yet to appear, or whose Examinations were not completed.	For whom Certificates were GRANTED.	Who were REPORTED QUALIFIED under O. in C. of 4 June 1870.	For whom Certificates were REFUSED.	Who were UNSUCCESSFUL COMPETITORS.	For whom Certificates are not required.*	Nominations, (including those undisposed of at the end of 1868-9).	Who were Absent, &c., or whose Nominations were Cancelled.	Not within Limits of Age.	Yet to appear.	Passed.	Not Passed.
TOTALS OF ALL THE DEPARTMENTS.	5,156	366	5,522	261	84	88	49	90	351	2,743	192	493	780	391	322	34	7	18	128	135
ADMIRALTY:—																				
Draughtsmen in Department of Chief Constructor of the Navy.	4	–	4	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–
Clerks in Dockyards, &c. abroad	1	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Computers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Temporary Writers	33	6	39	–	–	2	–	1	1	29	–	6	–	–	–	–	–	–	–	–
Engineer Students	111	–	111	2	–	2	–	–	43	11	–	–	53	–	–	–	–	–	–	–
Artificers and Labourers	89	–	89	–	6	4	–	–	1	76	2	–	–	–	–	–	–	–	–	–
Attendants, Porters, &c. in Naval Hospitals.	–	5	5	–	–	–	–	1	–	4	–	–	–	–	–	–	–	–	–	–
Dockyard and Victualling Yard Artificers, &c. for Promotion.	47	4	51	1	–	–	1	1	–	–	–	–	–	48	–	–	–	–	–	–
ADMIRALTY COURT (ENGLAND):—																				
Clerks	1	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	4	–	–
ADMIRALTY COURT (IRELAND):—																				
Clerks	3	–	3	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–
BRITISH MUSEUM:—																				
Assistants	5	–	5	–	–	–	–	–	–	2	2	1	–	–	–	–	–	–	–	–
Junior Assistants	5	–	5	–	–	–	–	–	–	4	1	–	–	–	–	–	–	–	–	–
Attendants	9	–	9	1	–	–	–	–	–	8	–	–	–	–	–	–	–	–	–	–

* These are persons who are examined at the request of Departments, either for promotion or entrance to situations for which, under present arrangements, certificates of qualification are not required.

TABLE C. (*continued*), showing for each DEPARTMENT the NUMBER of NOMINATIONS, &c. during the year from July 1, 1869, to June 30, 1870, and the manner in which the cases decided in the same period have been disposed of.

DEPARTMENT AND CLASS OF SITUATION.	Nominations, &c. (not including those to Test Examinations),			Number of Nominees, &c. (not including those to Test Examinations),									Test Examinations.				
	Made in 1869-70.	Made in 1868-9, but not disposed of in that year.	Total.	Who declined, withdrew, or were absent.	Who were not within the limits of AGE.	Whose HEALTH was not satisfactory.	Whose CHARACTER was not satisfactory.	Whose Nominations were cancelled by Departments for reasons not mentioned.	Yet to appear, or whose Examinations were not completed.	For whom Certificates were GRANTED.	Who were REPORTED QUALIFIED under O. in C. of 4 June 1870.	For whom Certificates were REFUSED.	Who were UNSUCCESSFUL COMPETITORS.	For whom Certificates are not required.*	Nominations, (including those undisposed of at the end of 1868-9).	Number of Nominees.	
																Who were Absent, &c., or whose Nominations were Cancelled.	Not within Limits of Age.	Yet to appear.	Examined. Passed.	Examined. Not Passed.
BROADMOOR CRIMINAL LUNATIC ASYLUM:—																				
Principal Attendants	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Subordinate Officers and Attendants.	26	6	32	2	–	4	–	–	4	20	2	–	–	–	–	–	–	–	–	–
CHARITABLE BEQUESTS COMMISSION (IRELAND):—																				
Messenger and Office Keeper	2	–	2	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–
CHARITY COMMISSION:—																				
Clerks	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
CHELSEA HOSPITAL:—																				
Nurses, &c.	16	–	16	2	–	1	–	–	2	10	1	–	–	–	–	–	–	–	–	–
CHIEF SECRETARY'S OFFICE (IRELAND):—																				
Clerks	–	5	5	–	–	–	–	–	–	1	–	–	4	–	–	–	–	–	–	–
Temporary Writers	1	–	1	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
CHURCH TEMPORALITIES COMMISSION (IRELAND):—																				
Clerks	8	–	8	–	–	–	–	–	–	–	3	5	–	–	–	–	–	–	–	–
CIVIL SERVICE COMMISSION:—																				
Boy Writers	9	–	9	–	–	–	–	–	–	8	1	–	–	–	–	–	–	–	–	–
Boy Messengers	2	–	2	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–

Clerks	9	–	9	2	–	–	–	–	–	1	–	–	6	–	–	–	–	–	–	–	–	–
Ceylon Writers	16	–	16	3	–	–	–	–	–	2	–	–	11	–	–	–	–	–	–	–	–	–
Straits Settlements Cadets	8	–	8	–	–	–	–	–	8	–	–	–	–	–	–	–	–	–	–	–	–	–
Clerks in Accounts Branch	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Supernumerary Copying Clerks	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
COMMONS, HOUSE OF:—																						
Clerks and Supernumerary Clerks	6	–	6	–	–	–	–	–	1	4	–	1	–	–	–	–	–	–	–	–	–	–
Superintendents of Copying Office	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Extra Messengers and Porters	2	–	2	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–
CONSTABULARY (ROYAL IRISH):—																						
Cadets	25	5	30	1	–	–	–	1	5	6	–	–	17	–	–	–	–	–	–	–	–	–
Clerks in Inspector-General's Office.	11	–	11	–	–	–	–	–	6	–	–	–	5	–	–	–	–	–	–	–	–	–
Writers	1	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
CONVICT PRISONS DEPARTMENT (IRELAND):—																						
Warders, Matrons, &c.	22	–	22	3	1	–	–	–	3	12	–	3	–	–	–	–	–	–	–	–	–	–
CONVICT SERVICE:—																						
Deputy Governors	5	–	5	–	–	–	–	–	–	4	1	–	–	–	–	–	–	–	–	–	–	–
Clerks	19	7	26	2	1	–	–	–	–	10	–	–	13	–	–	–	–	–	–	–	–	–
Temporary Clerks to Store Accountant.	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Schoolmasters and Schoolmistresses.	16	1	17	5	–	1	–	–	–	7	1	–	3	–	–	–	–	–	–	–	–	–
Compounders	13	–	13	4	–	–	–	1	2	–	1	5	–	–	–	–	–	–	–	–	–	–
Engineers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Assistant Warders, Civil Guards, Labourers, &c.	623	31	654	75	20	28	16	13	81	332	34	55	–	–	–	–	–	–	–	–	–	–
Assistant Matrons	63	7	70	12	4	2	–	1	4	33	2	12	–	–	–	–	–	–	–	–	–	–
Assistant Messengers in Prisons	10	–	10	–	–	1	–	–	4	1	1	–	3	–	–	–	–	–	–	–	–	–
COLONIAL CONVICT SERVICE:—																						
Deputy Controllers of Convicts	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Schoolmasters and Schoolmistresses.	4	3	7	3	–	–	–	1	–	1	–	–	2	–	–	–	–	–	–	–	–	–
Medical Clerks and Dispensers	–	1	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Clerks, Overseers, &c.	–	11	11	–	–	1	–	6	–	3	–	1	–	–	–	–	–	–	–	–	–	–
Assistant Warders, Constables, Seamen, &c.	31	99	130	–	–	6	–	32	1	90	1	–	–	–	–	–	–	–	–	–	–	–
COPYHOLD, &c. COMMISSION:—																						
Assistant Record Keepers	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–
Clerks	2	–	2	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–
COUNTY SURVEYORS IN IRELAND	35	–	35	9	–	–	–	–	–	2	–	–	24	–	–	–	–	–	–	–	–	–

* These are persons who are examined at the request of Departments, either for promotion or entrance to situations for which, under present arrangements, certificates of qualification are not required.

TABLE C. (*continued*), showing for each DEPARTMENT the NUMBER of NOMINATIONS, &c. during the year from July 1, 1869, to June 30, 1870, and the manner in which the cases decided in the same period have been disposed of.

DEPARTMENT AND CLASS OF SITUATION.	Nominations, &c. (not including those to Test Examinations),			Number of Nominees, &c. (not including those to Test Examinations),										Test Examinations.				
	Made in 1869-70.	Made in 1868-9, but not disposed of in that Year.	Total.	Who declined, withdrew, or were absent.	Who were not within the limits of AGE.	Whose HEALTH was not satisfactory.	Whose CHARACTER was not satisfactory.	Whose Nominations were cancelled by Departments for reasons not mentioned.	Yet to appear, or whose Examinations were not completed.	For whom Certificates were GRANTED.	Who were REPORTED QUALIFIED under O. in C. of 4 June 1870.	For whom Certificates were REFUSED.	Who were UNSUCCESSFUL COMPETITORS.	For whom Certificates are not required.*	Nominations, (including those undisposed of at the end of 1868-9).	Number of Nominees.		
																Who were Absent, &c., or whose Nominations were Cancelled.	Not within Limits of Age.	Yet to appear.
CRIMINAL LAW ACCOUNTS, OFFICE OF EXAMINERS OF:—																		
Messengers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
CUSTOMS:—																		
Clerks	4	–	4	–	–	1	–	–	–	–	1	–	2	–	6	–	–	–
Temporary Writers	58	4	62	1	1	–	2	–	1	32	2	23	–	–	–	–	–	–
Out-door Officers	210	16	226	2	12	5	3	1	21	121	13	48	–	–	–	–	–	–
Boatmen, Watermen, Watchmen	13	–	13	–	–	1	–	–	1	11	–	–	–	–	–	–	–	–
Messengers	5	–	5	–	–	1	–	–	2	2	–	–	–	–	–	–	–	–
DEEDS, REGISTRY OF (IRELAND):—																		
Clerks	13	–	13	–	–	–	–	–	–	2	2	–	9	–	20	2	–	–
DESIGNS, REGISTRY OF:—																		
Messengers	1	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
DUBLIN CITY PRISONS:—																		
Warders	8	–	8	2	–	–	1	–	–	3	1	1	–	–	–	–	–	–
DUBLIN METROPOLITAN POLICE:—																		
Clerks in Divisional Offices	6	–	6	–	–	–	–	–	6	–	–	–	–	–	–	–	–	–
DUNDRUM CENTRAL CRIMINAL LUNATIC ASYLUM:																		
Attendants, &c.	4	7	11	–	–	–	–	–	2	9	–	–	–	–	–	–	–	–

DEPARTMENT AND CLASS OF SITUATION.	Test Examinations.	
	Number of Nominees.	
	Examined.	
	Passed.	Not Passed.
CRIMINAL LAW ACCOUNTS, OFFICE OF EXAMINERS OF:—		
Messengers	–	–
CUSTOMS:—		
Clerks	3	3
Temporary Writers	–	–
Out-door Officers	–	–
Boatmen, Watermen, Watchmen	–	–
Messengers	–	–
DEEDS, REGISTRY OF (IRELAND):—		
Clerks	10	8
DESIGNS, REGISTRY OF:—		
Messengers	–	–
DUBLIN CITY PRISONS:—		
Warders	–	–
DUBLIN METROPOLITAN POLICE:—		
Clerks in Divisional Offices	–	–
DUNDRUM CENTRAL CRIMINAL LUNATIC ASYLUM:		
Attendants, &c.	–	–

ECCLESIASTICAL COMMISSION:—																				
Temporary Clerks	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–
Porters	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
EDUCATION OFFICE:—																				
Inspectors†	2	–	2	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–
Inspectors' Assistants	3	–	3	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–
Junior Assistant Clerks	92	–	92	7	–	–	–	–	–	12	6	–	67	–	–	–	–	–	–	–
EMIGRATION OFFICE:—																				
Assistant Emigration Officers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Messengers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
EXCHEQUER AND AUDIT OFFICE:—																				
Clerks	24	6	30	2	–	–	–	–	4	8	–	–	16	–	42	–	2	3	21	16
Messengers	2	–	2	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–
FACTORY INSPECTORS' DEPARTMENT:—																				
Sub-Inspectors	1	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
FISHERIES, IRELAND (OFFICE OF INSPECTORS OF):—																				
Clerks	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
FOREIGN OFFICE:—																				
Clerks in Chief Clerk's Department	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Temporary Clerks, Librarian's Department.	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–
Attachés	7	–	7	–	–	–	–	–	–	6	–	1	–	–	–	–	–	–	–	–
Attachés (Second Examination)	1	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Consuls and Vice-Consuls	3	1	4	–	–	–	–	–	–	3	–	1	–	–	–	–	–	–	–	–
Student Interpreters in China, &c.	18	–	18	1	–	1	–	–	–	5	–	–	11	–	–	–	–	–	–	–
Office-keepers and Messengers	1	1	2	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–
Escort Guards at Pekin, Yeddo, &c.	4	–	4	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–
FOUR COURTS, DUBLIN:—																				
Writing Clerks	1	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
FOUR COURTS, MARSHALSEA:—																				
Messengers, Hatchmen, &c.	2	–	2	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
FRIENDLY SOCIETIES' REGISTRY:—																				
Chief Clerk and Assistant Registrar	–	1	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Temporary Clerks	3	–	3	1	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–

* These are persons who are examined at the request of Departments, either for promotion or entrance to situations for which, under present arrangements, certificates of qualification are not required.

† In these cases the Commissioners inquire only as to health.

TABLE C. (*continued*), showing for each DEPARTMENT the NUMBER of NOMINATIONS, &c. during the year from July 1, 1869, to June 30, 1870, and the manner in which the cases decided in the same period have been disposed of.

DEPARTMENT AND CLASS OF SITUATION.	Nominations, &c. (not including those to Test Examinations).			Number of Nominees, &c. (not including those to Test Examinations),										Test Examinations.					
															Number of Nominees.				
																		Examined.	
	Made in 1869-70.	Made in 1868-9, but not disposed of in that year.	Total.	Who declined, withdrew, or were absent.	Who were not within the limits of AGE.	Whose HEALTH was not satisfactory.	Whose CHARACTER was not satisfactory.	Whose Nominations were cancelled by Departments for reasons not mentioned.	Yet to appear, or whose Examinations were not completed.	For whom Certificates were GRANTED.	Who were REPORTED QUALIFIED under O. in C. of 4 June 1870.	For whom Certificates were REFUSED.	Who were UNSUCCESSFUL COMPETITORS.	For whom Certificates are not required.*	Nominations, (including those undisposed of at the end of 1868-9).	Who were Absent, &c., or whose Nominations were Cancelled.	Not within Limits of Age.	Yet to appear.	Passed.	Not Passed.
HABITUAL CRIMINALS REGISTRY (IRELAND):																			
Clerks	5	-	5	-	-	-	-	-	1	1	-	3	-	-	-	-	-	-	-	-
HOME OFFICE:—																			
Clerks	3	-	3	-	-	-	-	-	-	1	-	-	2	-	-	-	-	-	-	-
Extra Clerks	-	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Porters	1	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
INDIA OFFICE:—																			
Messengers	-	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Officers of Forest Department	51	-	51	1	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-
Candidates for the Civil Service of India (Open Competition).	359	-	359	27	-	1	-	-	-	40	-	-	291	-	-	-	-	-	-	-
Selected Candidates, Civil Service of India (Periodical Examinations).	149	-	149	4	-	-	-	-	-	145	-	-	-	-	-	-	-	-	-	-
Selected Candidates, Civil Service of India (Final Examination).	47	-	47	-	-	-	-	-	-	41	-	6	-	-	-	-	-	-	-	-
INLAND REVENUE:—																			
Assistant Surveyors of Taxes	-	3	3	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Clerks	17	-	17	1	-	-	-	-	-	5	1	-	10	-	13	1	-	1	8	3
Assistants of Excise	468	28	496	2	6	-	2	6	53	230	18	179	-	-	-	-	-	-	-	-
Housekeepers, Porters, Stampers, Will Sorters, Messengers, &c.	16	-	16	-	2	1	-	-	-	11	-	2	-	-	-	-	-	-	-	-
LOAN FUND BOARD (IRELAND):—																			
Messengers	4	-	4	1	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-
LOCAL GOVERNMENT ACT OFFICE:—																			
Clerks	3	6	9	-	-	-	-	-	-	2	-	-	7	-	-	-	-	-	-	-

LONDON UNIVERSITY:—																				
Porters and Messengers	2	–	2	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–
Female Servants	2	–	2	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–
LUNACY BOARD (SCOTLAND):—																				
Clerks	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–
LUNACY COMMISSION:—																				
Clerks	2	–	2	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
METROPOLITAN POLICE COMMISSIONERS' OFFICE:—																				
Supplementary Clerks	8	–	8	–	–	–	–	–	2	4	–	2	–	–	–	–	–	–	–	–
REGISTRY OF HABITUAL CRIMINALS:—																				
Registrars	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Temporary Clerks	3	–	3	–	–	–	–	–	–	2	–	1	–	–	–	–	–	–	–	–
Writers	3	–	3	–	–	–	–	–	–	1	1	1	–	–	–	–	–	–	–	–
CONSTABLES, &c., FOR PROMOTION	134	–	134	–	–	–	–	–	–	–	–	–	–	134	–	–	–	–	–	–
METROPOLITAN POLICE COURTS:—																				
Messengers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
MINT:—																				
Clerks	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Temporary Writers	3	–	3	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–
Foremen	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Artificers, &c.	8	–	8	–	–	–	–	–	2	4	–	2	–	–	–	–	–	–	–	–
Boys	18	–	18	–	–	–	–	–	–	13	–	5	–	–	–	–	–	–	–	–
NATIONAL EDUCATION OFFICE (IRELAND):—																				
Inspectors of Schools	12	–	12	3	–	–	–	–	–	1	1	–	7	–	–	–	–	–	–	–
Clerks	16	–	16	2	–	–	–	–	–	2	–	–	12	–	–	–	–	–	–	–
NATIONAL GALLERY (SCOTLAND):—																				
Out-door Porters	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
PARLIAMENTARY COUNSEL (OFFICE OF THE):—																				
Temporary Clerk and Shorthand Writer.	–	1	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
PARLIAMENT OFFICE:—																				
Clerks	14	–	14	5	–	–	–	–	–	2	–	–	7	–	11	5	–	–	4	2
Temporary Assistant Clerks of Accounts.	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
PATENT OFFICE:—																				
Clerks	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–
Extra Clerks	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Temporary Writers	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–
Messengers	1	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–

* These are persons who are examined at the request of Departments, either for promotion or entrance to situations for which, under present arrangements, certificates of qualification are not required.

TABLE C. (*continued*), showing for each DEPARTMENT the NUMBER of NOMINATIONS, &c. during the year from July 1, 1869, to June 30, 1870, and the manner in which the cases decided in the same period have been disposed of.

DEPARTMENT AND CLASS OF SITUATION.	Nominations, &c. (not including those to Test Examinations),			Number of Nominees, &c. (not including those to Test Examinations),											Test Examinations.					
	Made in 1869-70.	Made in 1868-9, but not disposed of in that Year.	Total.	Who declined, withdrew, or were absent.	Who were not within the limits of AGE.	Whose HEALTH was not satisfactory.	Whose CHARACTER was not satisfactory.	Whose Nominations were cancelled by Departments for reasons not mentioned.	Yet to appear, or whose Examinations were not completed.	For whom Certificates were GRANTED.	Who were REPORTED QUALIFIED under O. in C. of 4 June 1870.	For whom Certificates were REFUSED.	Who were UNSUCCESSFUL COMPETITORS.	For whom Certificates are not required.*	Nominations, (including those undisposed of at the end of 1868-9).	Number of Nominees.				
																Who were Absent, &c. or whose Nominations were Cancelled.	Not within Limits of Age.	Yet to appear.	Examined.	
																			Passed.	Not Passed.
PAYMASTER GENERAL'S OFFICE:—																				
Clerks	36	–	36	2	–	–	–	–	–	13	1	–	20	–	57	3	–	–	31	23
Temporary Clerks	4	–	4	–	–	–	–	–	–	3	–	1	–	–	–	–	–	–	–	–
Messengers	3	1	4	–	1	–	–	–	–	1	–	2	–	–	–	–	–	–	–	–
PETTY SESSIONS CLERKS' REGISTRY (IRELAND):—																				
Clerks	5	–	5	–	–	–	–	–	–	1	–	–	4	–	–	–	–	–	–	–
Temporary Clerks	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
POOR LAW COMMISSION (IRELAND):—																				
Extra Clerks	11	–	11	1	–	–	–	–	–	2	–	–	8	–	–	–	–	–	–	–
Messengers	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–
POST OFFICE:—																				
Clerks in Secretary's Office	4	–	4	1	–	–	–	–	–	2	1	–	–	–	12	2	–	–	4	6
Clerks in Metropolitan Offices:—																				
Class 3	37	3	40	1	–	2	–	4	–	28	–	–	5	–	64	6	–	10	10	38
Class 4	–	1	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Supplementary Clerks, Class 3	13	21	34	–	–	–	–	–	–	17	–	–	17	–	36	4	2	–	9	21
Boy Clerks	17	–	17	–	1	–	–	–	5	2	4	5	–	–	–	–	–	–	–	–
Provincial Clerks and Sorters in the Travelling Post Office.	76	2	78	1	–	–	–	–	4	65	4	4	–	–	–	–	–	–	–	–
Letter-carriers, &c.	412	28	440	6	8	16	8	3	17	342	29	11	–	–	–	–	–	–	–	–
Assistants (Letter-carrier Class)	134	–	134	1	3	1	2	–	1	101	6	19	–	–	–	–	–	–	–	–
Rural and other Messengers, Mail and Station Porters.	523	24	547	4	2	–	10	2	33	433	39	24	–	–	–	–	–	–	–	–
Boy Messengers and Temporary Boy Messengers.	25	2	27	–	–	–	–	–	1	25	–	1	–	–	–	–	–	–	–	–
Labourers	37	–	37	1	2	1	1	–	1	29	2	–	–	–	–	–	–	–	–	–

PRISONS BOARD (SCOTLAND):—																				
Teachers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Warders	7	–	7	–	–	–	–	–	1	5	–	1	–	–	–	–	–	–	–	–
PROBATE AND DIVORCE COURTS (ENGLAND):—																				
Clerks	7	–	7	–	–	–	–	–	1	3	–	3	–	–	–	–	–	–	–	–
Writing Clerks	108	–	108	19	6	–	–	–	–	2	–	–	81	–	–	–	–	–	–	–
PROBATE COURT (IRELAND):—																				
Housekeepers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
PUBLIC WORKS OFFICE (IRELAND):—																				
Bailiff, Phœnix Park	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Constables, Phœnix Park	5	–	5	1	1	1	1	–	–	1	–	–	–	–	–	–	–	–	–	–
PUBLIC WORKS LOAN OFFICE, AND WEST INDIA ISLANDS RELIEF COMMISSION:—																				
Clerks	6	–	6	–	–	–	–	–	–	1	–	–	5	–	–	–	–	–	–	–
Messengers	2	–	2	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–
RECORD OFFICE (ENGLAND):—																				
Clerks	9	–	9	2	–	–	–	–	–	2	–	–	5	–	14	4	–	1	5	4
Workmen	6	–	6	–	–	–	–	–	–	6	–	–	–	–	–	–	–	–	–	–
RECORD OFFICE (IRELAND):—																				
Clerks	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8	6	1	–	–	1
Workmen	–	1	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
REGISTRAR GENERAL'S OFFICE (ENGLAND):—																				
Clerks	17	–	17	–	–	–	–	–	–	6	–	–	11	–	16	1	–	2	10	3
Index Compilers	12	–	12	–	–	–	–	–	–	4	–	–	8	–	15	–	2	–	9	4
REGISTRAR GENERAL'S OFFICE (IRELAND):—																				
Clerks	10	–	10	2	–	–	–	–	–	2	–	–	6	–	–	–	–	–	–	–
Temporary Clerks	–	1	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
ROYAL IRISH ACADEMY:—																				
Clerks	–	1	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–

* These are persons who are examined at the request of Departments, either for promotion or entrance to situations for which, under present arrangements, certificates of qualification are not required.

TABLE C. (*continued*), showing for each DEPARTMENT the NUMBER of NOMINATIONS, &c. during the year from July 1, 1869, to June 30, 1870, and the manner in which the cases decided in the same period have been disposed of.

DEPARTMENT AND CLASS OF SITUATION.	Nominations, &c. (not including those to Test Examinations),			Number of Nominees, &c. (not including those to Test Examinations),										Test Examinations.					
	Made in 1869-70.	Made in 1868-9, but not disposed of in that year.	Total.	Who declined, withdrew, or were absent.	Who were not within the limits of AGE.	Whose HEALTH was not satisfactory.	Whose CHARACTER was not satisfactory.	Whose Nominations were cancelled by Departments for reasons not mentioned.	Yet to appear, or whose Examinations were not completed.	For whom Certificates were GRANTED.	Who were REPORTED QUALIFIED under O. in C. of 4 June 1870.	For whom Certificates were REFUSED.	Who were UNSUCCESSFUL COMPETITORS.	For whom Certificates are not required.*	Nominations, (including those undisposed of at the end of 1868-9).	Number of Nominees. Who were Absent, &c., or whose Nominations were Cancelled.	Number of Nominees. Not within Limits of Age.	Number of Nominees. Yet to appear.	Number of Nominees. Examined. Passed.	Number of Nominees. Examined. Not Passed.
SCIENCE AND ART DEPARTMENT:—																			
Clerks	1	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Museum Clerks	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Clerks in the Museum of Science and Art, Edinburgh.	12	–	12	1	–	–	–	–	–	1	–	–	10	–	–	–	–	–	–
Assistant Geologists	–	5	5	–	–	–	–	–	–	3	–	2	–	–	–	–	–	–	–
SEAMEN'S REGISTRY OFFICE:—																			
Clerks	10	–	10	1	–	–	–	–	–	2	–	–	7	–	–	–	–	–	–
Temporary Clerks	6	–	6	1	–	–	–	–	–	3	–	–	2	–	–	–	–	–	–
Lithographers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Messengers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
SUPERVISION, BOARD OF (SCOTLAND):—																			
Clerks	3	–	3	–	–	–	–	–	–	1	–	2	–	–	–	–	–	–	–
TRADE, BOARD OF:—																			
Temporary Clerks	2	–	2	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–
Messengers and Extra Messengers	2	–	2	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–
Light Keepers at the Bahamas	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
TREASURY:—																			
Clerks	3	–	3	–	–	–	–	–	–	1	–	2	2	–	8	–	–	1	4	3
Temporary Clerks and Occasional Clerks.	3	–	3	–	–	–	–	–	–	1	–	2	–	–	–	–	–	–	–	–
Supplementary Clerks and Supplementary Audit Clerks.	3	–	3	–	–	–	–	–	–	1	1	1	–	–	–	–	–	–	–	–
Temporary Messengers	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–

WAR OFFICE:—																				
Stewards and Compounders in Lock Hospitals.	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–
Commissariat Issuers - -	2	–	2	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–
Engineers, Mates, &c. of Vessel -	5	–	5	–	–	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–
Messenger and Office Keeper in Military Store Office.	1	–	1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Viewers, Foremen, Labourers, &c. in Royal Laboratory.	5	1	6	–	–	–	–	–	–	6	–	–	–	–	–	–	–	–	–	–
Warders, &c. in Military Prisons	2	–	2	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–
Nurses, Servants, and other Females.	4	6	10	1	1	–	–	2	–	3	–	3	–	–	–	–	–	–	–	–
ADJUTANT-GENERAL'S OFFICE—																				
Supplemental Clerks - -	4	1	5	–	–	–	–	3	–	2	–	–	–	–	–	–	–	–	–	–
QUARTERMASTER-GENERAL'S OFFICE—																				
Clerks - - - - -	2	–	2	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–
MILITARY ENTRANCE EXAMINATIONS—																				
Candidates for Direct Commissions.	180	–	180	16	–	–	–	–	14	–	–	–	–	150	–	–	–	–	–	–
Candidates for appointments in Royal Malta Fencible Artillery.	8	–	8	1	–	–	–	–	–	–	–	–	–	7	–	–	–	–	–	–
WORKS, OFFICE OF:—																				
Assistant Surveyors of Works -	10	–	10	4	–	–	–	–	–	–	–	–	6	–	–	–	–	–	–	–
Second Assistants in Kew Herbarium.	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Warders at Glasgow Cathedral -	1	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Civil Assistants, Ordnance Survey	185	1	186	3	4	5	1	9	2	130	4	28	–	–	–	–	–	–	–	–

* These are persons who are examined at the request of Departments, either for promotion or entrance to situations for which, under present arrangements, certificates of qualification are not required.

TABLE D.—Showing the NUMBER and PARTICULARS of the COMPETITIONS disposed of in the Year July 1, 1869, to June 30, 1870.

‡ Competitions marked thus were open competitions.

DEPARTMENT AND CLASS OF SITUATION.	No. of Competitions held.	No. of Situations competed for.	No. of Competitors.	No. of Competitors.				
				Who did not proceed to Examination, or who were ineligible.	Who were eligible and examined.			
					Total.	Unsuccessful.		Successful.
						Not competent.	Competent.	
TOTAL - -	77	124	640	89	551	436		115
CHIEF SECRETARY'S OFFICE (IRELAND):—								
Clerks - - - -	1	1	5	-	5	4	-	1
Temporary Writers - - -	-	-	-	-	-	-	-	-
COLONIAL OFFICE:—								
Clerks - - - -	1	1	9	2	7	3	3	1
Ceylon Writers - - -	2	2	16	3	13	2	9	2
CONSTABULARY (ROYAL IRISH):—								
Cadets - - - -	3	5	24	2	22	5	12	5
Clerks in Inspector General's Office.	1	1	5	-	5	5	-	-
CONVICT SERVICE:—								
Clerks - - - -	3	3	19	3	16	7	6	3
Schoolmasters - - -	2	3	11	5	6	2	1	3
COLONIAL CONVICT SERVICE:—								
Assistant Messengers in Prisons -	1	1	4	-	4	2	1	1
Schoolmasters - - -	1	2	4	2	2	2	-	-
‡COUNTY SURVEYORS IN IRELAND.	1	2	35	9	26	24		2
CUSTOMS:—								
Clerks - - - -	1	1	3	-	3	-	2	1
DEEDS, REGISTRY OF (IRELAND):—								
Clerks - - - -	2	4	13	-	13	-	9	4
EDUCATION OFFICE:—								
Junior Assistant Clerks - -	3	18	92	7	85	51	16	18
EXCHEQUER AND AUDIT OFFICE:—								
Clerks - - - -	5	8	26	2	24	-	16	8
FOREIGN OFFICE:—								
Student Interpreters in China, &c.	2	6	18	2	16	9	2	5
FRIENDLY SOCIETIES' REGISTRY:—								
Temporary Clerks - - -	1	1	2	-	2	1	-	1
HOME OFFICE:—								
Clerks - - - -	1	1	3	-	3	2	-	1
INLAND REVENUE:—								
Assistant Surveyors of Taxes -	1	1	3	2	1	-	-	1
Clerks - - - -	3	5	16	1	15	5	5	5
LOCAL GOVERNMENT ACT OFFICE:—								
Clerks - - - -	2	3	9	-	9	6	1	2
NATIONAL EDUCATION OFFICE (IRELAND):—								
Inspectors of Schools - -	3	3	12	3	9	7	-	2
Clerks - - - -	2	2	16	2	14	5	7	2
PARLIAMENT OFFICE:—								
Clerks - - - - -	1	2	14	5	9	-	7	2

TABLE D.—*continued.*

DEPARTMENT AND CLASS OF SITUATION.	No. of Competitions held.	No. of Situations competed for.	No. of Competitors.	No. of Competitors.			
				Who did not proceed to Examination, or who were ineligible.	Who were eligible and examined.		
					Total.	Unsuccessful.	
						Not competent.	Competent.	Successful.
PAYMASTER GENERAL'S OFFICE:—								
Clerks	6	10	32	2	30	–	20	10
PETTY SESSIONS CLERKS' REGISTRY (IRELAND):—								
Clerks	1	1	5	–	5	–	4	1
POOR LAW COMMISSION (IRELAND):—								
Extra Clerks	2	2	11	1	10	3	5	2
POST OFFICE:—								
Clerks in Metropolitan Offices—								
Class 3	2	3	9	1	8	–	5	3
Supplementary Clerks, Class 3	2	8	25	–	25	–	17	8
PROBATE AND DIVORCE COURTS (ENGLAND):—								
‡Writing Clerks	1	2	108	25	83	76	5	2
PUBLIC WORKS LOAN OFFICE:—								
Clerks	2	2	6	–	6	5	–	1
RECORD OFFICE (ENGLAND):—								
Clerks	3	3	9	2	7	3	2	2
REGISTRAR GENERAL'S OFFICE (ENGLAND):—								
Clerks	4	5	16	–	16	4	7	5
Index Compilers	3	4	12	–	12	–	8	4
REGISTRAR GENERAL'S OFFICE (IRELAND):—								
Clerks	2	2	10	2	8	1	5	2
SCIENCE AND ART DEPARTMENT:—								
Clerks in the Museum of Science and Art, Edinburgh.	1	1	12	1	11	10	–	1
SEAMEN'S REGISTRY OFFICE:—								
Clerks	2	2	10	1	9	–	7	2
Temporary Clerks	1	1	3	–	3	2	–	1
TREASURY:—								
Clerks	1	1	3	–	3	–	2	1
WORKS, OFFICE OF:—								
Assistant Surveyors of Works	1	1	10	4	6	6	–	–

Note 1.—In addition to the above the following competitions have been held :—

‡ Those marked thus were open competitions.

Department, &c.	Number of Competitions held.	Number of Candidates examined.	Number of Situations.
ADMIRALTY :—			
‡Engineer Students	1	64	11
Candidates for Promotion in Dockyards and Victualling Yards.	12	48	—
‡COUNTY SURVEYORS IN IRELAND	1	26	2
INDIA CIVIL SERVICE :—			
‡Open Competition for entrance	1	331	40
Selected Candidates, Periodical Examination.	3	145	—
Selected Candidates, Final Examination	1	47	—
‡INDIA, FOREST DEPARTMENT	1	50	11
METROPOLITAN POLICE :—			
Constables, Sergeants, &c. for Promotion	10	134	—
MILITARY EXAMINATIONS :—			
Candidates for Direct Commissions	1	150	*
Candidates for an appointment in the Royal Malta Fencible Artillery.	1	7	1

* 99 candidates were reported as being successful.

Note 2.—The following competitions had been announced but had not been dealt with up to June 30, 1870.

Department, &c.	Number of Competitions.	Number of Situations to be competed for.	Number of Competitors.
ADMIRALTY :—			
Engineer Students	1	15	43
COLONIAL OFFICE :—			
Straits Settlements Cadets	1	2	8
CONSTABULARY (IRELAND) :—			
Cadets	1	1	5
Clerks in Inspector General's Office	1	1	6
CONVICT SERVICE :—			
Assistant Messengers at Prison	1	1	4
DUBLIN METROPOLITAN POLICE :—			
Clerks in Divisional Offices	1	1	6
EXCHEQUER AND AUDIT OFFICE :—			
Clerks	1	1	4
POST OFFICE :—			
Boy Clerks in Savings Bank	1	3	5

TABLE E.—Showing the SUBJECTS for which HONORARY CERTIFICATES have been granted to CANDIDATES during the year ending 30th June 1870.

*** The number of candidates by whom these honorary certificates were obtained was 50.

Subjects for which Honorary Certificates have been granted.	Clerks and Superior Officers.				Assistants of Excise, Provincial Clerks, and Convict Service Clerks.	Writers, Temporary Clerks, &c.	Total.
	Customs and Inland Revenue.	Post Office.	Treasury, Offices of Secretaries of State, Parliament Office, House of Commons, Admiralty (Whitehall).	Other Departments.			
LANGUAGES:							
Latin	—	—	3	3	2	4	12
Greek	—	—	2	4	1	1	8
French	1	—	5	2	—	2	10
German	—	—	1	2	—	—	3
Italian	—	—	1	1	—	—	2
MATHEMATICS:							
Arithmetic (higher)	—	—	—	1	3	—	4
Algebra	—	—	1	10	—	—	11
Euclid	—	—	1	3	—	—	4
Plane Trigonometry	—	—	1	2	—	—	3
Mixed Mathematics	—	—	—	1	—	—	1
English Language	—	—	1	—	—	—	1
„ Composition	—	—	—	3	2	—	5
„ Literature	—	—	—	2	—	—	2
Précis	—	—	1	3	—	1	5
Indexing	—	—	—	—	4	—	4
Digesting and Tabulating Accounts and Returns.	—	—	—	—	2	—	2
Copying into Forms and Registers	—	—	—	—	1	—	1
Book-keeping by Double Entry	1	—	—	—	—	—	1
Shorthand	—	—	—	1	—	—	1
Geography	—	1	2	—	4	—	7
History	—	—	—	4	1	1	6
Logic	—	—	—	1	—	—	1
Marked proficiency in any one or more of the prescribed subjects.	—	—	—	1	—	—	1
	2	1	19	44	20	9	95

TABLE F.—(CAUSES OF REJECTION.)

Showing the PARTICULAR DEFICIENCIES on account of which CERTIFICATES of QUALIFICATION have been REFUSED by the CIVIL SERVICE COMMISSIONERS during the period 1st July 1869 to 30th June 1870.

CAUSES OF REJECTION.	Rejections.				Failures in Preliminary Test Examinations.
	Superior Officers, viz., Establishment Clerks, and others.	Temporary Clerks, Provincial Clerks, Assistants of Excise, &c.	Out-door Officers, Letter-carriers, &c.	Total.	
DEFICIENCIES IN					
Spelling alone	2	56	13	71	6
Arithmetic alone	2	66	124	192	22
Reading alone	–	–	2	2	–
Handwriting alone	–	1	1	2	6
Reading MSS. alone	–	–	35	35	–
Spelling and Arithmetic	5	84	26	115	6
Spelling and Handwriting	1	8	2	11	1
Arithmetic and Handwriting	–	–	6	6	1
Arithmetic and Reading MSS.	–	–	6	6	–
Handwriting and Reading	–	–	2	2	–
Other failures, involving Spelling, Arithmetic, Handwriting, or Reading	24	11	6	41	72
	34	226	223	483	114
Residue	4	–	–	4	21
	38	226	223	487	135
Failures not involving Spelling, Arithmetic, Handwriting, or Reading					
Viz.: Latin	–	–	–	–	6
French	–	–	–	–	9
French and English Composition	–	–	–	–	2
Latin, Geography, and History	–	–	–	–	1
Latin, French, Précis, Geography, and History	–	–	–	–	1
French, Euclid, Constitutional History, and Political History of Europe	1	–	–	1	–
English Composition	–	–	–	–	2
Political Economy and History	1	–	–	1	–
Comparison of Copies	1	–	–	1	–
Use of Mathematical Instruments	1	–	–	1	–
	4	–	–	4	21

TABLE G. (1.)—Showing in detail the Marks obtained by Successful and Unsuccessful Competitors in the Examinations held between 1st July 1869 and 30th June 1870.

Note.—The names of the successful Candidates are given, and the unsuccessful are designated by numbers. When no Candidate passed a sufficiently good examination in each of the prescribed subjects to entitle him to a certificate of qualification, all the competitors are designated by numbers. Where one of the unsuccessful competitors is shown to have obtained more marks than a successful candidate, he had forfeited his claim to a certificate by failure in one or more of the prescribed subjects. The cipher indicates the subjects in which candidates failed.

* Successful competitors whose names are preceded by this mark have obtained honorary additions to their certificates.

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
ADMIRALTY.																
See Table G. (9.) p. 49, for the marks assigned in competitions for Engineer Studentships.																
CHIEF SECRETARY'S OFFICE (IRELAND).																
July 20, 1869.	**Maximum** -	**200**	—	**150**	**150**	**100**	—	**200**	**200**	**150**	**150**	—	—	—	—	**1300**
*Thorp; C. W. -	A Clerkship.	152	—	140	105	95	—	145	160	85	60	—	—	—	—	942
No. 2 - - -		84	—	0	85	100	—	160	150	85	105	—	—	—	—	769
No. 3 - - -		0	—	0	120	90	—	125	130	62	75	—	—	—	—	602
No. 4 - - -		0	—	120	0	100	—	135	130	0	0	—	—	—	—	485
No. 5 - - -		0	—	0	85	90	—	110	0	0	0	—	—	—	—	285
COLONIAL OFFICE.																
See Tables G. (2.), (3.), pp. 42 and 43.																

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
CONSTABULARY (ROYAL IRISH).																
March 29, 1870.	**Maximum** -	**150**	**50**	**150**	**150**	**100**	—	**200**	**200**	**150**	—	—	—	—	—	**1150**
No. 1 - - -	A Clerkship in the Inspector General's Office.	106	50	0	102	96	—	133	185	95	—	—	—	—	—	767
No. 2 - - -		98	42	0	122	95	—	107	150	125	—	—	—	—	—	739
No. 3 - - -		115	38	0	83	90	—	133	150	95	—	—	—	—	—	704
No. 4 - - -		56	48	0	86	85	—	100	75	65	—	—	—	—	—	515
No. 5 - - -		52	18	0	105	90	—	0	0	110	—	—	—	—	—	375
See Table G. (8) p. 48 for marks assigned in competitions for cadetships.																
CONVICT SERVICE.																
August 24, 1869.	**Maximum** -	**250**	—	**100**	**100**	**100**	—	—	—	—	—	—	—	—	—	**550**
*Woods; W. A. -	A Clerkship.	228	—	95	70	75	—	—	—	—	—	—	—	—	—	468
No. 2 - - -		227	—	75	70	90	—	—	—	—	—	—	—	—	—	462
No. 3 - - -		153	—	90	65	95	—	—	—	—	—	—	—	—	—	403

CONVICT SERVICE—*cont.*

January 4, 1870.	**Maximum** -	**250**	—	**100**	**100**	**100**	—	—	—	—	—	—	—	—	—	**550**
Potts; J. - -	A Clerkship.	233	—	95	85	100	—	—	—	—	—	—	—	—	—	513
No. 2 - - -		198	—	80	60	100	—	—	—	—	—	—	—	—	—	438
No. 3 - - -		0	—	80	60	95	—	—	—	—	—	—	—	—	—	235
No. 4 - - -		0	—	70	60	80	—	—	—	—	—	—	—	—	—	210
March 1, 1870.																
Juleff; J. - -	A Clerkship.	213	—	70	75	90	—	—	—	—	—	—	—	—	—	448
No. 2 - - -		179	—	100	63	100	—	—	—	—	—	—	—	—	—	442
No. 3 - - -		188	—	78	75	100	—	—	—	—	—	—	—	—	—	441
No. 4 - - -		172	—	70	75	95	—	—	—	—	—	—	—	—	—	412
No. 5 - - -		156	—	0	0	80	—	—	—	—	—	—	—	—	—	236
No. 6 - - -		0	—	0	75	85	—	—	—	—	—	—	—	—	—	160
No. 7 - - -		0	—	0	60	85	—	—	—	—	—	—	—	—	—	145
No. 8 - - -		0	—	0	0	95	—	—	—	—	—	—	—	—	—	95
No. 9 - - -		0	—	0	0	85	—	—	—	—	—	—	—	—	—	85
August 3, 1869.							(Reading.)		(Religious knowledge.)			(School management.)	(English gram.)	(Euclid.)	(Algebra.)	
	Maximum -	**350**	—	**100**	**100**	**100**	**100**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**1950**
Holmes; J. J. -	A Schoolmastership.	284	—	96	65	100	85	75	131	80	120	85	97	113	94	1425
No. 2 - - -		191	—	60	62	100	75	110	98	106	85	55	91	67	34	1134
January 18, 1870.													(English gram. & lang.)			
	Maximum -	**350**	—	**100**	**100**	**100**	**100**	—	**150**	**150**	**150**	**150**	**200**	**150**	**150**	**1850**
No. 1 - - -	2 Schoolmasterships (Gibraltar.)	144	—	0	68	95	65	—	50	73	0	95	120	—	5	715
No. 2 - - -		0	—	0	57	80	70	—	65	0	60	105	100	—	—	537

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
April 26, 1870.	**Maximum** -	**350**	—	**100**	**100**	**100**	**100**	—	**150**	**150**	**150**	**150**	**200** (English gram. & lang.)	**150**	**150**	**1850**
Hogger; G. -	2 Schoolmasterships.	209	—	95	75	100	80	—	140	116	110	140	150	—	—	1215
Lines; J. E. -		258	—	55	70	100	85	—	125	84	—	135	130	—	100	1142
No. 3 - - -		137	—	0	50	90	80	—	140	100	0	80	115	0	—	792
No. 4 - - -		0	—	55	55	85	55	—	50	0	0	80	0	—	—	380
May 1870.	**Maximum** -	**100**	**100** (Reading.)	**100**	**100**	**100**	**100** (Health marks.)	—	—	—	—	—	—	—	—	**600**
Platt; W. J. -	An Assistant Messengership (Portsmouth Prison).	100	90	90	80	85	100	—	—	—	—	—	—	—	—	545
No. 2 - - -		100	90	60	70	70	75	—	—	—	—	—	—	—	—	465
No. 3 - - -		85	70	0	55	80	90	—	—	—	—	—	—	—	—	380
No. 4 - - -		55	90	0	0	75	75	—	—	—	—	—	—	—	—	295
COUNTY SURVEYORS IN IRELAND. See Table G. (4), p. 44.																
CUSTOMS.																
April 1870.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	—	**150**	—	—	—	—	—	**1250**
Forder; F. - -	A Clerkship (Grimsby).	271	—	270	140	100	—	100	—	81	—	—	—	—	—	962
No. 2 - - -		153	—	285	135	100	—	115	—	106	—	—	—	—	—	894
No. 3 - - -		174	—	235	100	90	—	90	—	104	—	—	—	—	—	793

DEEDS, REGISTRY OF (IRELAND).

November 23, 1869.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	—	—	—	—	—	—	—	**1100**
Maguire; J. -		304	—	300	150	100	—	128	—	—	—	—	—	—	—	982
*Ball; H. W. -		256	—	300	150	95	—	128	—	—	—	—	—	—	—	929
No. 3 - - -		212	—	290	160	95	—	128	—	—	—	—	—	—	—	885
No. 4 - - -	2 Clerkships.	198	—	285	140	100	—	150	—	—	—	—	—	—	—	873
No. 5 - - -		181	—	290	145	100	—	143	—	—	—	—	—	—	—	859
No. 6 - - -		241	—	275	130	90	—	105	—	—	—	—	—	—	—	841
No. 7 - - -		219	—	265	140	85	—	120	—	—	—	—	—	—	—	829
May 24, 1870.																
*Burke; R. - -		268	—	291	160	95	—	90	—	—	—	—	—	—	—	904
Horan; T. - -		276	—	282	145	100	—	95	—	—	—	—	—	—	—	898
No. 3 - - -		276	—	260	165	95	—	90	—	—	—	—	—	—	—	886
No. 4 - - -	2 Clerkships.	224	—	282	165	100	—	70	—	—	—	—	—	—	—	841
No. 5 - - -		150	—	270	140	90	—	113	—	—	—	—	—	—	—	763
No. 6 - - -		156	—	180	110	95	—	65	—	—	—	—	—	—	—	606

EDUCATION OFFICE.

						Copying MSS.								
August 19, 1869.	**Maximum** -	**100**	**50**	—	**100**	—	**150**	—	—	—	—	—	—	—	**400**
Ayliffe; H. J. -		79	25	—	75	—	130	—	—	—	—	—	—	—	309
Harvey; W. A. -		79	10	—	70	—	125	—	—	—	—	—	—	—	284
Stockham; J. A. -		76	5	—	85	—	110	—	—	—	—	—	—	—	276
Crocker; W. H. -		85	8	—	70	—	100	—	—	—	—	—	—	—	263
Harrison; W. J. -		73	21	—	70	—	90	—	—	—	—	—	—	—	254
Horner; B. - -		66	12	—	65	—	110	—	—	—	—	—	—	—	253
Dolton; D. - -		74	2	—	65	—	110	—	—	—	—	—	—	—	251
No. 8 - -		89	12	—	70	—	75	—	—	—	—	—	—	—	246
No. 9 - -		72	12	—	62	—	90	—	—	—	—	—	—	—	236
No. 10 - -		0	21	—	85	—	120	—	—	—	—	—	—	—	226

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
EDUCATION OFFICE—*cont.*							Copying MSS.									
November 20, 1869.	**Maximum** -	**100**	**50**	—	**100**	—	**150**	—	—	—	—	—	—	—	—	**400**
No. 11 - -	7 Junior Assistant Clerkships.	80	0	—	50	—	80	—	—	—	—	—	—	—	—	210
No. 12 - -		0	0	—	80	—	75	—	—	—	—	—	—	—	—	155
No. 13 - -		68	17	—	65	—	0	—	—	—	—	—	—	—	—	150
		30	0	—	60	—	90	—	—	—	—	—	—	—	—	150
No. 15 - -		68	17	—	60	—	0	—	—	—	—	—	—	—	—	145
No. 16 - -		55	23	—	60	—	0	—	—	—	—	—	—	—	—	138
No. 17 - -		64	6	—	65	—	0	—	—	—	—	—	—	—	—	135
No. 18 - -		72	0	—	50	—	0	—	—	—	—	—	—	—	—	122
No. 19 - -		50	0	—	60	—	0	—	—	—	—	—	—	—	—	110
No. 20 - -		0	4	—	70	—	0	—	—	—	—	—	—	—	—	74
No. 21 - -		0	2	—	55	—	0	—	—	—	—	—	—	—	—	57
No. 22 - -		0	0	—	55	—	0	—	—	—	—	—	—	—	—	55
November 20, 1869.																
Maywood ; H. J. -		80	46	—	80	—	115	—	—	—	—	—	—	—	—	321
Shea ; J. - -		85	23	—	90	—	110	—	—	—	—	—	—	—	—	308
Wootton ; J. J. -		65	22	—	70	—	110	—	—	—	—	—	—	—	—	267

Edrupt; R. W.			85	16	—	70	—	93	—	—	—	—	—	—	—	—	264
Smith; R. G.			93	2	—	70	—	93	—	—	—	—	—	—	—	—	258
No. 6			60	2	—	75	—	115	—	—	—	—	—	—	—	—	252
No. 7			80	5	—	53	—	105	—	—	—	—	—	—	—	—	243
No. 8			85	27	—	55	—	75	—	—	—	—	—	—	—	—	242
No. 9			75	13	—	68	—	78	—	—	—	—	—	—	—	—	234
			75	14	—	55	—	90	—	—	—	—	—	—	—	—	234
No. 11			88	9	—	55	—	78	—	—	—	—	—	—	—	—	230
			65	2	—	68	—	95	—	—	—	—	—	—	—	—	230
No. 13			65	24	—	60	—	80	—	—	—	—	—	—	—	—	229
No. 14			75	6	—	60	—	80	—	—	—	—	—	—	—	—	221
No. 15			60	6	—	68	—	85	—	—	—	—	—	—	—	—	219
No. 16			65	6	—	63	—	78	—	—	—	—	—	—	—	—	212
No. 17			68	8	—	58	—	75	—	—	—	—	—	—	—	—	209
No. 18			60	0	—	65	—	75	—	—	—	—	—	—	—	—	200
No. 19		5 Junior Assistant Clerkships.	0	6	—	73	—	110	—	—	—	—	—	—	—	—	189
No. 20			0	7	—	68	—	85	—	—	—	—	—	—	—	—	160
No. 21			0	19	—	65	—	75	—	—	—	—	—	—	—	—	159
No. 22			0	18	—	58	—	75	—	—	—	—	—	—	—	—	151
No. 23			0	2	—	70	—	75	—	—	—	—	—	—	—	—	147
No. 24			0	0	—	60	—	85	—	—	—	—	—	—	—	—	145
No. 25			0	2	—	60	—	80	—	—	—	—	—	—	—	—	142
			0	4	—	63	—	75	—	—	—	—	—	—	—	—	142
No. 27			0	0	—	63	—	78	—	—	—	—	—	—	—	—	141
No. 28			0	0	—	55	—	83	—	—	—	—	—	—	—	—	138
No. 29			0	0	—	58	—	75	—	—	—	—	—	—	—	—	133
			70	8	—	55	—	0	—	—	—	—	—	—	—	—	133
No. 31			0	2	—	55	—	75	—	—	—	—	—	—	—	—	132
No. 32			50	0	—	60	—	0	—	—	—	—	—	—	—	—	110
No. 33			0	4	—	58	—	0	—	—	—	—	—	—	—	—	62
No. 34			0	0	—	53	—	0	—	—	—	—	—	—	—	—	53
No. 35			0	0	—	50	—	0	—	—	—	—	—	—	—	—	50
No. 36			0	6	—	0	—	0	—	—	—	—	—	—	—	—	6
No. 37			0	4	—	0	—	0	—	—	—	—	—	—	—	—	4
No. 38			0	2	—	0	—	0	—	—	—	—	—	—	—	—	2
			0	2	—	0	—	0	—	—	—	—	—	—	—	—	2

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
EDUCATION OFFICE—*cont.*																
May 30, 1870.	**Maximum** -	**100**	**50**	—	**100**	—	**150**	—	—	—	—	—	—	—	—	**400**
Ellenor; T. R. -	6 Junior Assistant Clerkships.	90	21	—	80	—	140	—	—	—	—	—	—	—	—	331
Burridge; T. -		90	10	—	70	—	120	—	—	—	—	—	—	—	—	290
Brown; G. - -		83	10	—	75	—	120	—	—	—	—	—	—	—	—	288
Trathan; E. E. -		90	18	—	63	—	90	—	—	—	—	—	—	—	—	261
Martyn; F. G. -		88	10	—	60	—	100	—	—	—	—	—	—	—	—	258
Richardson; G. A.		80	12	—	60	—	90	—	—	—	—	—	—	—	—	242
No. 7 - - -		80	6	—	55	—	90	—	—	—	—	—	—	—	—	231
No. 8 - - -		50	4	—	63	—	95	—	—	—	—	—	—	—	—	212
No. 9 - - -		0	4	—	70	—	105	—	—	—	—	—	—	—	—	179
No. 10 - -		90	20	—	65	—	0	—	—	—	—	—	—	—	—	175
No. 11 - -		0	8	—	55	—	110	—	—	—	—	—	—	—	—	173
No. 12 - -		85	16	—	55	—	0	—	—	—	—	—	—	—	—	156
No. 13 - -		80	4	—	65	—	0	—	—	—	—	—	—	—	—	149
No. 14 - -		85	10	—	0	—	0	—	—	—	—	—	—	—	—	95
No. 15 - -		75	2	—	0	—	0	—	—	—	—	—	—	—	—	77
No. 16 - -		70	4	—	0	—	0	—	—	—	—	—	—	—	—	74
No. 17 - -		65	6	—	0	—	0	—	—	—	—	—	—	—	—	71
No. 18 - -		0	6	—	0	—	0	—	—	—	—	—	—	—	—	6
No. 19 - -		0	4	—	0	—	0	—	—	—	—	—	—	—	—	4
No. 20 - -		0	2	—	0	—	0	—	—	—	—	—	—	—	—	2
		0	2	—	0	—	0	—	—	—	—	—	—	—	—	2

No. 22 - -		0	0	—	0	—	0	—	—	—	—	—	—	—	—	0
No. 23 - -		0	0	—	0	—	0	—	—	—	—	—	—	—	—	0
No. 24 - -		0	0	—	0	—	0	—	—	—	—	—	—	—	—	0
EXCHEQUER AND AUDIT OFFICE.																
July 6, 1869.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	**200**	**150**	—	—	**150**	**150**	**200**	**1950**
Otter ; R. M. B. -		211	—	270	145	95	—	125	160	115	—	—	100	130	98	1449
*Martin ; W. M. -		221	—	250	135	100	—	140	180	70	—	—	110	120	98	1424
No. 3 - - -	2 Clerkships.	236	—	225	150	85	—	90	150	80	—	—	40	0	106	1162
No. 4 - - -		239	—	150	110	90	—	110	135	65	—	—	70	25	107	1101
No. 5 - - -		102	—	160	120	95	—	120	140	25	—	—	65	95	86	1008
August 31, 1869.																
*Reay ; R. W. -		290	—	288	140	100	—	100	155	124	—	—	135	100	80	1512
Fallon ; R. J. -		263	—	264	135	100	—	128	140	78	—	—	105	120	106	1439
No. 3 - - -	2 Clerkships.	270	—	228	135	95	—	100	115	107	—	—	110	100	167	1427
No. 4 - - -		248	—	279	115	90	—	95	130	109	—	—	120	75	64	1325
No. 5 - - -		267	—	192	135	95	—	105	120	130	—	—	68	8	137	1257
No. 6 - - -		79	—	255	145	100	—	120	130	69	—	—	60	90	0	1048
September 28, 1869.																
Vanderzee ; G. Y. -		233	—	255	140	95	—	75	170	120	—	—	105	105	129	1427
No. 2 - - -	A Clerkship.	215	—	260	140	95	—	85	190	56	—	—	83	130	60	1314
No. 3 - - -		226	—	285	150	95	—	100	160	90	—	—	30	60	78	1274
February 1, 1870.																
*Dale ; W. F. -	A Clerkship.	281	—	290	130	100	—	110	170	90	—	—	150	113	112	1546
No. 2 - - -		136	—	240	100	100	—	105	140	55	—	—	70	98	110	1154
May 10, 1870.																
*Glyn ; C. C. -		295	—	300	165	100	—	120	120	120	—	—	128	140	83	1571
*Barrett ; A. R. -		234	—	205	170	98	—	115	180	125	—	—	90	140	100	1457
No. 3 - - -		303	—	280	130	100	—	75	150	99	—	—	83	20	97	1337
No. 4 - - -	2 Clerkships.	260	—	200	165	100	—	125	110	104	—	—	60	110	98	1332
No. 5 - - -		229	—	290	100	100	—	120	80	79	—	—	113	90	89	1290

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
EXCHEQUER AND AUDIT OFFICE—*cont.*																
	Maximum -	**350**	—	**300**	**200**	**100**	—	**150**	**200**	**150**	—	—	**150**	**150**	**200**	**1950**
No. 6 - - -		247	—	220	135	100	—	90	110	111	—	—	68	65	114	1260
No. 7 - - -		201	—	295	115	100	—	90	165	29	—	—	8	10	16	1029
No. 8 - - -		186	—	160	125	90	—	75	100	54	—	—	30	10	56	886
FOREIGN OFFICE.																
March 1, 1870.	**Maximum** -	**150**	—	**100**	**100**	**100**	—	—	**200**	**150**	—	—	**150**	**200**	**200**	**1350**
*McClatchie; T.R.H.	5 Student Interpreterships in China and Japan.	125	—	94	63	100	—	—	180	145	—	—	150	185	128	1170
*Crawford; J. D. -		138	—	97	72	93	—	—	160	50	—	—	130	175	93	1008
Mansfield; R. W. -		113	—	73	68	100	—	—	160	80	—	—	143	95	116	948
Neale; W. L. B. -		90	—	90	78	100	—	—	130	100	—	—	120	140	67	915
†No. 5 - - -		116	—	77	52	90	—	—	140	95	—	—	128	110	105	913
No. 6 - - -		78	—	95	70	100	—	—	160	95	—	—	90	185	0	873
No. 7 - - -		0	—	0	87	100	—	—	180	100	—	—	143	140	109	859
No. 8 - - -		0	—	95	70	100	—	—	180	53	—	—	90	185	0	773
No. 9 - -		90	—	53	50	100	—	—	140	0	—	—	83	110	95	721
No. 10 - -		110	—	72	50	100	—	—	80	0	—	—	75	140	86	713
No. 11 - -		107	—	72	55	90	—	—	150	65	—	—	83	0	73	695
No. 12 - -		87	—	50	55	90	—	—	120	0	—	—	90	100	0	592
No. 13 - -		0	—	70	65	95	—	—	140	52	—	—	75	0	69	566
No. 14 - -		93	—	0	55	80	—	—	90	65	—	—	113	0	0	496

May 10, 1870.																	
*Young; W. H. -	A Student Interpretership in China.	92	—	90	75	98	—	—	110	129	—	—	98	200	70	962
No. 2 - - -		86	—	75	62	90	—	—	140	93	—	—	75	165	130	916
No. 3 - - -		74	—	60	60	90	—	—	100	60	—	—	83	110	158	795
FRIENDLY SOCIETIES' REGISTRY.							Read-ing.										
November 23, 1869.	**Maximum -**	**150**	—	**100**	**100**	**100**	**50**	—	—	—	—	—	—	—	—	**500**
Hayes; A. T. -	A Temporary Clerkship.	99	—	86	80	80	35	—	—	—	—	—	—	—	—	380
No. 2 - - -		53	—	0	65	70	0	—	—	—	—	—	—	—	—	188
HOME OFFICE.																	
January 18, 1870.	**Maximum -**	**350**	—	**100**	**100**	**100**	—	**150**	—	**150**	**150**	—	**300**	**300**	—	**1700**
*Graves; A. P. -	A Clerkship.	112	—	85	68	100	—	130	—	120	115	—	143	215	—	1088
No. 2 - - -		0	—	65	0	100	—	90	—	62	0	—	150	0	—	467
No. 3 - - -		0	—	65	55	95	—	0	—	0	0	—	0	0	—	215
INLAND REVENUE.																	
July 6, 1870.	**Maximum -**	**350**	—	**300**	**200**	**100**	—	**150**	—	**150**	**150**	—	—	—	—	**1400**
Macfarlan; H. -	An Assistant Surveyorship of Taxes.	223	—	300	105	100	—	110	—	80	60	—	—	—	—	978
February 15, 1870.																	
*Wills; W. H. -	A Clerkship at Glasgow.	237	—	240	140	100	—	105	—	123	110	—	—	—	—	1055
No. 2 - - -		201	—	130	110	85	—	100	—	86	85	—	—	—	—	797
February 15, 1870.																	
Moore; W. H. -	2 Clerkships.	289	—	300	170	100	—	120	—	80	105	—	—	—	—	1164
*Warner; F. H. -		236	—	260	120	96	—	145	—	136	150	—	—	—	—	1143
No. 3 - - -		230	—	240	130	95	—	135	—	100	90	—	—	—	—	1020
No. 4 - - -		239	—	160	130	95	—	108	—	71	90	—	—	—	—	893
No. 5 - - -		140	—	200	105	95	—	113	—	87	60	—	—	—	—	800
No. 6 - - -		175	—	260	120	85	—	60	—	0	60	—	—	—	—	760
No. 7 - - -		96	—	130	100	90	—	68	—	0	0	—	—	—	—	484

† This candidate passed on the examination, but failed to satisfy the Commissioners that his health was such as to qualify him for public employment.

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
INLAND REVENUE—*cont.*																
April 26, 1870.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	—	**150**	**150**	—	—	—	—	**1400**
Catling; H. -	2 Clerkships.	336	—	290	150	100	—	75	—	122	120	—	—	—	—	1193
Dixon; S. L. -		297	—	235	135	100	—	80	—	91	75	—	—	—	—	1033
No. 3 - - -		231	—	290	125	100	—	100	—	0	60	—	—	—	—	906
No. 4 - - -		180	—	200	145	75	—	75	—	78	62	—	—	—	—	815
No. 5 - - -		121	—	250	125	100	—	90	—	0	0	—	—	—	—	686
No. 6 - - -		138	—	250	105	100	—	65	—	0	0	—	—	—	—	658
LOCAL GOVERNMENT ACT OFFICE.							Comparison of Copies.									
July 6, 1869.	**Maximum** -	**350**	—	**100**	**100**	**100**	**100**	**200**	**200**	—	—	—	—	—	—	**1150**
Houndle; H.C.H.H.	2 Clerkships.	126	—	80	52	95	100	160	165	—	—	—	—	—	—	778
No. 2 - - -		197	—	0	63	97	85	160	110	—	—	—	—	—	—	712
No. 3 - - -		0	—	94	90	97	75	160	130	—	—	—	—	—	—	646
No. 4 - - -		0	—	85	50	90	90	130	100	—	—	—	—	—	—	545
No. 5 - - -		0	—	60	85	75	0	115	140	—	—	—	—	—	—	475
No. 6 - - -		0	—	0	55	75	0	130	0	—	—	—	—	—	—	260
August 3, 1869.																
Bartholomew; C. E.	A Clerkship.	217	—	70	65	90	96	120	125	—	—	—	—	—	—	783
No. 2 - - -		212	—	80	70	90	90	90	110	—	—	—	—	—	—	742
No. 3 - - -		185	—	60	75	90	0	150	150	—	—	—	—	—	—	710

NATIONAL EDUCATION OFFICE (IRELAND).

See Table G. (5.), (6.), pp. 45, 46.

PARLIAMENT OFFICE.

See Table G. (7.), p. 47.

PAYMASTER-GENERAL'S OFFICE.

August 3, 1869.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	**200**	—	—	**200**	**300**	**300**	—	**1800**
Williams; G. -	A Clerkship.	238	—	260	160	80	—	90	120	—	—	104	90	—	—	1142
No. 2 - - -		171	—	160	120	95	—	90	150	—	—	82	235	—	—	1103
No. 3 - - -		217	—	280	110	85	—	70	105	—	—	6	120	—	—	993
September 28, 1869.																
*Kearns; H. -	4 Clerkships.	264	—	280	170	100	—	115	180	—	—	95	140	—	—	1344
*West; B. - -		268	—	290	170	100	—	110	165	—	—	75	100	—	—	1278
*Mace; T. J. -		229	—	300	155	100	—	110	90	—	—	115	130	—	—	1229
Sheppard; J. F. -		199	—	255	130	100	—	90	150	—	—	50	—	175	—	1149
No. 5 - - -		225	—	230	120	95	—	100	160	—	—	90	—	110	—	1130
No. 6 - - -		120	—	195	150	95	—	100	120	—	—	30	269	—	—	1079
No. 7 - - -		149	—	255	120	100	—	115	90	—	—	0	—	215	—	1044
No. 8 - - -		101	—	270	90	95	—	83	130	—	—	35	160	—	—	964
No. 9 - - -		198	—	180	100	80	—	85	150	—	—	50	60	—	—	903
No. 10 - - -		169	—	215	110	90	—	70	60	—	—	25	130	—	—	869
No. 11 - - -		125	—	130	100	80	—	75	140	—	—	45	50	—	—	745
November 23, 1869.																
Anderson; W. M.	A Clerkship.	291	—	255	116	100	—	75	175	—	—	162	—	120	—	1294
No. 2 - - -		238	—	228	156	95	—	105	140	—	—	153	70	—	—	1185
No. 3 - - -		174	—	210	110	80	—	75	120	—	—	147	145	—	—	1061
December 21, 1869.																
Fleury; E. R. -	A Clerkship.	140	—	265	145	85	—	85	120	—	—	56	212	—	—	1108
No. 2 - - -		180	—	240	140	95	—	110	150	—	—	65	107	—	—	1087
No. 3 - - -		161	—	250	140	95	—	80	90	—	—	120	115	—	—	1051

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
PAYMASTER-GENERAL'S OFFICE—*cont.*																
April 26, 1870.	**Maximum** -	**350**	—	**100**	**100**	**100**	—	**150**	**200**	**150**	—	—	—	—	—	**1150**
Warburton; H. W.	2 Clerkships.	277	—	290	145	100	—	110	165	—	—	123	105	—	—	1315
Wilson; G. D. A. F.		154	—	225	130	100	—	90	130	—	—	88	290	—	—	1207
No. 3 - - -		293	—	210	130	85	—	70	120	—	—	128	140	—	—	1176
No. 4 - - -		223	—	260	160	100	—	70	165	—	—	61	125	—	—	1164
No. 5 - - -		188	—	270	140	100	—	90	165	—	—	40	75	—	—	1068
No. 6 - - -		201	—	245	140	95	—	90	110	—	—	64	—	90	—	1035
May 24, 1870.																
*Willcock; A. -	A Clerkship.	222	—	276	150	95	—	55	140	—	—	90	160	—	—	1188
No. 2 - - -		252	—	270	140	100	—	70	120	—	—	84	45	—	—	1081
No. 3 - - -		212	—	246	120	95	—	60	100	—	—	140	60	—	—	1033
No. 4 - - -		108	—	291	120	95	—	45	90	—	—	10	55	—	—	814

PETTY SESSIONS CLERKS' REGISTRY (IRELAND).																
February 1, 1870.	**Maximum** -	**350**	—	**100**	**100**	**100**	—	**150**	—	**150**	—	**200**	—	—	—	**1150**
Martelli; T. M. -	A Clerkship.	309	—	85	90	100	—	130	—	129	—	162	—	—	—	1005
No. 2 - - -		285	—	85	90	100	—	130	—	117	—	154	—	—	—	961
No. 3 - - -		291	—	100	85	100	—	105	—	111	—	80	—	—	—	872
No. 4 - - -		296	—	85	70	100	—	110	—	113	—	97	—	—	—	871
No. 5 - - -		277	—	65	55	95	—	115	—	130	—	76	—	—	—	813
POOR LAW COMMISSION (IRELAND).																
August 31, 1869.	**Maximum** -	**350**	—	**100**	**100**	**100**	—	**150**	**200**	**150**	—	—	—	—	—	**1150**
Clark; J. P. -	An Extra Clerkship.	326	—	65	85	100	—	135	170	118	—	—	—	—	—	999
No. 2 - - -		306	—	70	80	100	—	120	180	106	—	—	—	—	—	962
No. 3 - - -		293	—	92	60	95	—	130	150	118	—	—	—	—	—	938
No. 4 - - -		262	—	75	65	95	—	90	0	89	—	—	—	—	—	676
No. 5 - - -		247	—	50	75	100	—	75	0	92	—	—	—	—	—	639
March 15, 1870.																
McSheahan; D. J.	An Extra Clerkship.	298	—	84	74	96	—	135	170	81	—	—	—	—	—	938
No. 2 - - -		277	—	95	74	96	—	120	160	100	—	—	—	—	—	922
No. 3 - - -		245	—	93	73	100	—	120	170	80	—	—	—	—	—	881
No. 4 - - -		224	—	91	50	96	—	150	180	74	—	—	—	—	—	865
No. 5 - - -		0	—	0	0	70	—	100	0	0	—	—	—	—	—	170
POST OFFICE.																
July 22, 1869.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	—	—	—	—	**300**	**300**	—	**1400**
Uhthoff; E. C. -		205	—	280	125	96	—	110	—	—	—	—	—	150	—	966
Lagden; G. Y. -		212	—	270	130	95	—	100	—	—	—	—	90	—	—	897
Farmer; J. S. -		173	—	235	120	85	—	100	—	—	—	—	175	—	—	888
Ward; A. R. -		121	—	290	110	100	—	115	—	—	—	—	145	—	—	881
Wells; H. S. -		189	—	290	140	95	—	95	—	—	—	—	70	—	—	879
Hillier; C. T. -		206	—	290	140	100	—	115	—	—	—	—	25	—	—	876
Nind; G. F. P. -		155	—	250	130	100	—	105	—	—	—	—	135	—	—	875

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
POST OFFICE—*cont.*																
July 22, 1869.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	—	—	—	—	**300**	**300**	—	**1400**
No. 8 - - -	7 Supplementary Clerkships (Savings Bank).	206	—	265	125	95	—	110	—	—	—	—	60	—	—	861
No. 9 - - -		193	—	250	140	95	—	100	—	—	—	—	75	—	—	853
No. 10 - -		162	—	270	125	85	—	110	—	—	—	—	—	90	—	842
No. 11 - -		130	—	250	130	75	—	105	—	—	—	—	—	150	—	840
No. 12 - -		189	—	235	120	96	—	90	—	—	—	—	105	—	—	835
No. 13 - -		155	—	280	120	85	—	95	—	—	—	—	60	—	—	795
No. 14 - -		155	—	225	105	85	—	95	—	—	—	—	90	—	—	755
		85	—	235	145	100	—	95	—	—	—	—	—	95	—	755
No. 16 - -		152	—	240	100	95	—	100	—	—	—	—	65	—	—	752
No. 17 - -		181	—	200	110	90	—	105	—	—	—	—	65	—	—	751
No. 18 - -		134	—	290	120	97	—	85	—	—	—	—	20	—	—	746
No. 19 - -		14	—	265	140	90	—	80	—	—	—	—	—	135	—	724
No. 20 - -		96	—	270	85	95	—	85	—	—	—	—	—	90	—	721
No. 21 - -		135	—	270	110	70	—	80	—	—	—	—	55	—	—	720
No. 22 - -		91	—	210	110	95	—	105	—	—	—	—	60	—	—	671
February 15, 1870.																
Trinder; W. G. -	A Supplementary Clerkship (Savings Bank).	180	—	228	120	95	—	135	—	—	—	—	—	210	—	968
No. 2 - -		138	—	200	105	95	—	125	—	—	—	—	—	105	—	768
No. 3 - - -		137	—	237	105	90	—	90	—	—	—	—	80	—	—	739

March 29, 1870.																
Tobin; F. J. -	2 Clerkships in the Money Order Office.	208	—	250	155	100	—	80	—	—	—	—	—	190	—	983
Godby; H. A. -		256	—	280	135	95	—	75	—	—	—	—	110	—	—	951
No. 3 - - -		259	—	240	125	100	—	90	—	—	—	—	85	—	—	899
No. 4 - - -		143	—	220	160	100	—	70	—	—	—	—	85	—	—	778
No. 5 - - -		206	—	140	125	95	—	70	—	—	—	—	135	—	—	771
May 10, 1870.																
Hendley; S. -	A Clerkship in the Money Order Office.	265	—	270	130	100	—	125	—	—	—	—	115	—	—	1005
No. 2 - - -		241	—	220	160	99	—	105	—	—	—	—	150	—	—	975
No. 3 - - -		144	—	200	100	80	—	95	—	—	—	—	60	—	—	679

									Engrossing, including German Text.	Comparison of Copies with Originals.	Facsimile copying.					
PROBATE COURT.																
February 4, 1870.	**Maximum** -	**100**	—	**100**	**200**	**100**	—	—	**200**	**200**	**100**	—	—	—	—	**1000**
Knight; J. W. -	2 Writing Clerkships (Open Competition).	92	—	82	180	100	—	—	165	180	95	—	—	—	—	894
Wyatt; J. - -		65	—	90	140	100	—	—	175	140	50	—	—	—	—	760
No. 3 - - -		55	—	95	140	97	—	—	110	150	80	—	—	—	—	727
No. 4 - - -		85	—	100	145	100	—	—	70	150	65	—	—	—	—	715
No. 5 - - -		81	—	55	140	80	—	—	145	130	55	—	—	—	—	686
No. 6 - - -		96	—	62	135	92	—	—	90	110	85	—	—	—	—	670
No. 7 - - -		66	—	97	160	95	—	—	175	0	75	—	—	—	—	668
No. 8 - - -		50	—	55	130	87	—	—	100	155	75	—	—	—	—	652
No. 9 - - -		92	—	97	155	100	—	—	0	155	50	—	—	—	—	649
No. 10 - -		93	—	90	155	95	—	—	0	155	55	—	—	—	—	643
No. 11 - -		85	—	90	120	93	—	—	0	180	70	—	—	—	—	638
No. 12 - -		80	—	60	165	95	—	—	0	140	90	—	—	—	—	630
No. 13 - -		92	—	100	150	100	—	—	0	100	50	—	—	—	—	592
No. 14 - -		0	—	87	140	96	—	—	80	160	0	—	—	—	—	563
No. 15 - -		0	—	90	160	98	—	—	0	145	70	—	—	—	—	563
No. 16 - -		95	—	50	135	82	—	—	145	0	50	—	—	—	—	557
No. 17 - -		0	—	72	155	97	—	—	120	0	70	—	—	—	—	514
No. 18 - -		100	—	96	145	100	—	—	0	0	65	—	—	—	—	506
No. 19 - -		0	—	85	125	85	—	—	140	0	65	—	—	—	—	500
No. 20 - -		88	—	70	155	95	—	—	0	0	75	—	—	—	—	483

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
PROBATE COURT—*cont.*									Engrossing, including German Text.	Comparison of Copies with Originals.	Facsimile copying.					
February 4, 1870.	**Maximum** -	**100**	—	**100**	**200**	**100**	—	—	**200**	**200**	**100**	—	—	—	—	**1000**
No. 21 - -		0	—	50	120	70	—	—	150	0	65	—	—	—	—	455
No. 23 - -		0	—	80	120	95	—	—	160	0	0	—	—	—	—	455
No. 24 - -		0	—	83	155	92	—	—	0	0	80	—	—	—	—	410
No. 25 - -		92	—	80	130	93	—	—	0	0	0	—	—	—	—	395
No. 26 - -		58	—	80	120	100	—	—	0	0	0	—	—	—	—	358
No. 27 - -		0	—	65	130	87	—	—	0	0	0	—	—	—	—	282
No. 28 - -		0	—	0	0	78	—	—	115	0	50	—	—	—	—	243
No. 29† - -		50	—	0	115	75	—	—	0	0	0	—	—	—	—	240
		0	—	0	145	65	—	—	0	0	0	—	—	—	—	210
PUBLIC WORKS LOAN OFFICE.							(Copying MS.)									
December 7, 1869.	**Maximum** -	**350**	—	**100**	**100**	**100**	**100**	—	—	—	—	—	—	—	—	**750**
No. 1 - - -		0	—	94	50	90	60	—	—	—	—	—	—	—	—	294
No. 2 - - -	A Clerkship.	0	—	70	60	90	60	—	—	—	—	—	—	—	—	280
No. 3 - - -		0	—	70	55	90	55	—	—	—	—	—	—	—	—	270
January 18, 1870.																
Allen; B. - -		257	—	100	68	100	90	—	—	—	—	—	—	—	—	615
No. 2 - - -	A Clerkship.	0	—	100	75	100	65	—	—	—	—	—	—	—	—	340
No. 3 - - -		0	—	55	60	85	55	—	—	—	—	—	—	—	—	255

RECORD OFFICE.									(Blackstones' Commentaries).								
September 28, 1869.	**Maximum** -	—	—	—	—	—	—	—	**200**	—	—	—	**200**	**200**	—	**600**
Purser; A. - -	A Clerkship.	—	—	—	—	—	—	—	150	—	—	—	150	180	—	480
No. 2 - - -		—	—	—	—	—	—	—	60	—	—	—	110	150	—	320
November 24, 1869.																
No. 1 - - -	A Clerkship.	—	—	—	—	—	—	—	0	—	—	—	120	140	—	260
No. 2 - - -		—	—	—	—	—	—	—	0	—	—	—	70	130	—	200
No. 3 - - -		—	—	—	—	—	—	—	0	—	—	—	120	50	—	170
January 18, 1870.																
Stephen; H. St. J.	A Clerkship.	—	—	—	—	—	—	—	170	—	—	—	100	95	—	365
No. 2 - - -		—	—	—	—	—	—	—	165	—	—	—	70	100	—	335
REGISTRAR-GENERAL'S OFFICE (ENGLAND).																
July 20, 1869.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	**200**	**150**	**150**	—	—	—	—	**1600**
Mortimer; W. -	2 Clerkships.	195	—	185	150	80	—	105	140	115	125	—	—	—	—	1095
Cooke; R. H. P. -		176	—	255	120	95	—	105	110	105	105	—	—	—	—	1071
No. 3 - - -		256	—	240	110	90	—	90	70	63	75	—	—	—	—	994
No. 4 - - -		103	—	230	135	95	—	113	140	0	70	—	—	—	—	886
No. 5 - - -		124	—	150	120	80	—	100	150	70	115	—	—	—	—	909
No. 6 - - -		174	—	255	105	95	—	95	75	0	0	—	—	—	—	799
No. 7 - - -		28	—	190	145	90	—	90	0	0	0	—	—	—	—	543
September 28, 1869.																
Micklewood; G. -	A Clerkship.	225	—	230	180	90	—	105	190	60	65	—	—	—	—	1145
No. 2 - - -		209	—	130	110	80	—	90	170	60	60	—	—	—	—	909
No. 3 - - -		172	—	100	120	75	—	85	170	70	90	—	—	—	—	882
January 18, 1870.																
Woolcock; J. T. -	A Clerkship.	278	—	250	150	80	—	30	160	120	105	—	—	—	—	1173
No. 2 - - -		301	—	235	140	95	—	75	120	88	75	—	—	—	—	1129
No. 3 - - -		286	—	200	150	90	—	30	140	92	75	—	—	—	—	1063

† Fifty-four other candidates presented themselves, but having failed in a preliminary examination in handwriting they were not allowed to proceed.

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
REGISTRAR-GENERAL'S OFFICE (ENGLAND)—*cont.*																
March 29, 1870.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	**200**	**150**	**150**	—	—	—	—	**1600**
Westacott; S. -	A Clerkship.	278	—	270	120	100	—	110	155	140	125	—	—	—	—	1298
No. 2 - - -		173	—	200	145	96	—	85	160	95	110	—	—	—	—	1064
No. 3 - - -		213	—	265	135	95	—	95	0	100	85	—	—	—	—	988
September 28, 1869.	**Maximum** -	**150**	—	**300**	**200**	**100**	—	—	—	—	—	—	—	—	—	**750**
*Lane; E. B. -	2 Index Compilerships.	142	—	290	170	100	—	—	—	—	—	—	—	—	—	702
Pearce; S. - -		142	—	230	135	85	—	—	—	—	—	—	—	—	—	592
No. 3 - -		144	—	190	150	80	—	—	—	—	—	—	—	—	—	564
No. 4 - - -		106	—	255	115	85	—	—	—	—	—	—	—	—	—	561
No. 5 - - -		130	—	190	145	80	—	—	—	—	—	—	—	—	—	545
No. 6 - - -		88	—	210	135	80	—	—	—	—	—	—	—	—	—	513
March 15, 1870.																
*Tytheridge; W. R.	An Index Compilership.	124	—	255	125	100	—	—	—	—	—	—	—	—	—	604
No. 2 - - -		129	—	225	135	90	—	—	—	—	—	—	—	—	—	579
No. 3 - - -		108	—	170	100	75	—	—	—	—	—	—	—	—	—	453

April 26, 1870.																
*Moody; R. Q. -	An Index Compilership.	142	—	290	150	100	—	—	—	—	—	—	—	—	—	682
No. 2 - - -		124	—	245	150	90	—	—	—	—	—	—	—	—	—	609
No. 3 - - -		92	—	210	165	100	—	—	—	—	—	—	—	—	—	567
REGISTRAR-GENERAL'S OFFICE (IRELAND).																
March 1, 1870.	**Maximum** -	**350**	—	**100**	**100**	**100**	—	**150**	**200**	**150**	—	—	—	—	—	**1150**
*Leech; M. T. -	A Clerkship.	244	—	160	80	95	—	140	195	130	—	—	—	—	—	1044
No. 2 - - -		319	—	95	65	97	—	130	140	135	—	—	—	—	—	981
No. 3 - - -		274	—	95	68	95	—	120	140	68	—	—	—	—	—	900
No. 4 - - -		231	—	100	82	100	—	110	140	63	—	—	—	—	—	876
No. 5 - - -		0	—	0	58	80	—	0	0	50	—	—	—	—	—	188
March 29, 1870.																
*Eagar; G. E. -	A Clerkship.	234	—	95	80	100	—	130	130	110	—	—	—	—	—	879
No. 2 - - -		282	—	75	65	100	—	105	150	95	—	—	—	—	—	872
No. 3 - - -		234	—	88	50	100	—	70	130	105	—	—	—	—	—	777
SCIENCE AND ART DEPARTMENT.																
August 3, 1869.	**Maximum** -	**350**	—	**100**	**100**	**100**	—	**150**	**200**	**150**	—	—	—	—	—	**1150**
Clark; W. - -	A Clerkship in the Museum of Science and Art, Edinburgh.	174	—	90	80	95	—	95	160	90	—	—	—	—	—	784
No. 2 - - -		130	—	65	65	95	—	105	120	0	—	—	—	—	—	580
No. 3 - - -		0	—	80	55	100	—	110	170	0	—	—	—	—	—	515
No. 4 - - -		0	—	0	60	95	—	105	150	85	—	—	—	—	—	495
No. 5 - - -		0	—	0	55	90	—	120	130	52	—	—	—	—	—	447
No. 6 - - -		0	—	85	60	90	—	95	65	0	—	—	—	—	—	395
No. 7 - - -		0	—	0	50	90	—	95	140	0	—	—	—	—	—	375
No. 8 - - -		0	—	50	50	80	—	95	0	81	—	—	—	—	—	356
No. 9 - - -		0	—	0	65	90	—	90	110	0	—	—	—	—	—	355
No. 10 - - -		0	—	55	50	85	—	90	0	59	—	—	—	—	—	339
No. 11 - - -		0	—	0	60	80	—	70	0	0	—	—	—	—	—	210

Table G.—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Separate Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	Transcribing.	English Composition or Correspondence.	Précis or Indexing.	Geography.	History.	Book-keeping.	French or another Modern Language.	Latin.	Algebra or Euclid.	Total.
SEAMEN'S REGISTRY OFFICE.																
October 12, 1869.	**Maximum** -	**350**	—	**100**	**100**	**100**	—	—	**200**	**150**	—	—	**200**	—	—	**1200**
*Denniford ; R. -	A Clerkship.	242	—	90	90	100	—	—	180	115	—	—	130	—	—	947
No. 2 - - -		288	—	90	80	100	—	—	150	50	—	—	150	—	—	908
No. 3 - - -		249	—	85	65	100	—	—	130	65	—	—	125	—	—	819
No. 4 - - -		165	—	50	65	90	—	—	115	75	—	—	80	—	—	640
March 15, 1870.																
Mulley ; W. H. -	A Clerkship.	289	—	93	75	97	—	—	180	90	—	—	170	—	—	994
No. 2 - - -		260	—	90	83	100	—	—	170	60	—	—	160	—	—	923
No. 3 - - -		287	—	93	88	100	—	—	120	85	—	—	120	—	—	893
No. 4 - - -		219	—	82	80	95	—	—	120	75	—	—	125	—	—	796
No. 5 - - -		236	—	83	65	100	—	—	110	60	—	—	100	—	—	754
October 12, 1869.	**Maximum** -	**250**	—	**100**	**100**	**100**	—	—	—	—	—	—	—	—		**550**
Gaunt ; J. B. -	A Temporary Clerkship.	158	—	72	52	96	—	—	—	—	—	—	—	—	—	378
No. 2 - - -		143	—	0	60	80	—	—	—	—	—	—	—	—	—	283
No. 3 - - -		0	—	0	0	70	—	—	—	—	—	—	—	—	—	70

TREASURY.																	
September 28, 1869.	**Maximum** -	**350**	—	**300**	**200**	**100**	—	**150**	**200**	**150**	**150**	—	**300**	**300**	**200**	**2100**
Primrose; H. W. -	A Clerkship.	305	—	295	130	98	—	115	190	140	125	—	—	260	160	1818
No. 2 - - -		189	—	275	160	100	—	105	170	130	145	—	268	—	112	1654
No. 3 - - -		278	—	285	120	95	—	150	160	50	115	—	—	245	120	1618
WAR:																	
ADJUTANT GENERAL'S OFFICE.†																	
		Theory of Construction and Knowledge of Materials.	Designs and Specifications.	Estimating and Valuing.	Drawing.												
WORKS, OFFICE OF.																	
May 3, 1870.	**Maximum** -	**100**	**200**	**100**	**100**	—	—	—	—	—	—	—	—	—	—	**500**
No. 1 - - -	An Assistant Surveyorship of Works.	42	88	75	15	—	—	—	—	—	—	—	—	—	—	220
No. 2 - - -		24	60	45	50	—	—	—	—	—	—	—	—	—	—	179
No. 3 - - -		31	64	60	12	—	—	—	—	—	—	—	—	—	—	167
No. 4 - - -		24	66	43	10	—	—	—	—	—	—	—	—	—	—	143
No. 5 - - -		17	80	37	9	—	—	—	—	—	—	—	—	—	—	143
No. 6 - - -		12	32	36	40	—	—	—	—	—	—	—	—	—	—	120

† A competition for one Supplemental Clerkship was announced; but, the nominations having been withdrawn, it did not take place.

TABLE G. (2.)—COLONIAL OFFICE.

Name or Number of Candidate, and Date of Competition.	Situation.	Précis.	Class I.					Class II.								Class III.		Class IV.			Class V.			Total.
			Latin.		Greek.			French.				Italian.						Law.						
			Translation.	Composition.	Translation.	Composition.	Greek and Roman History.	Translation.	Composition.	Oral.	Literature.	Translation.	Composition.	Oral.	Literature.	History.	English Composition.	Constitutional.	International.	Political Economy.	Pure Mathematics.	Mixed Mathematics.	Book-keeping.	
May 5, 1870.	**Maximum**	600	300	300	300	300	300	100	150	150	100	100	150	150	100	900	600	500	500	500	700	700	100	5100
Graham; F. -	A Clerkship.	510	—	—	—	—	—	—	—	—	—	—	—	—	—	410	420	325	315	350	400	350	80	3160
No. 2 - - -		480	280	90	270	150	90	70	83	83	15	75	96	102	88	—	—	—	—	—	200	50	18	2240
No. 3 - - -		450	245	70	120	60	—	—	—	—	—	—	—	—	—	—	—	275	250	350	30	10	—	1860
No. 4§ - -		420	210	75	135	90	70	—	—	—	—	—	—	—	—	345	320	—	—	—	20	15	0	1700

§ Three other candidates presented themselves, but failed in the preliminary part of the examination.

TABLE G. (3.)—COLONIAL OFFICE.

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Précis.	Class I.					Class II.		Class III.			Class IV.			Total.
			Latin.		Greek.		Greek and Roman Literature.	Modern History.	English Composition.	Law.		Political Economy.	Pure Mathematics.	Mixed Mathematics.	Book-keeping.	
			Translation.	Composition.	Translation.	Composition.				Constitutional.	International.					
July 29, 1869.	**Maximum**	**600**	**300**	**300**	**300**	**300**	**300**	**900**	**600**	**500**	**500**	**500**	**700**	**700**	**100**	**5100**
Smart; J. E.	A Ceylon Writership.	360	150	165	160	105	60	480	420	75	100	150	—	—	—	2225
No. 2		360	70	60	10	10	120	510	360	—	—	—	410	100	—	2010
No. 3		330	100	75	45	45	180	480	330	138	150	125	—	—	—	1998
No. 4		270	180	105	55	5	65	240	300	50	10	10	—	—	—	1290
No. 5 §		405	130	60	5	5	25	165	360	—	—	—	55	25	0	1235
December 30, 1869.																
Green; H. W.	A Ceylon Writership.	420	295	255	285	240	95	780	570	300	350	325	—	—	—	3915
No. 2		600	250	135	—	—	25	525	525	—	—	—	500	290	40	2890
No. 3		480	—	—	—	—	—	445	480	175	125	175	400	260	9	2549
No. 4		510	—	—	—	—	—	500	450	175	75	150	220	145	34	2259
No. 5		450	—	—	—	—	—	320	450	—	—	—	390	235	5	1850
No. 6 §		360	—	—	—	—	—	225	510	125	200	200	—	—	—	1620

§ One other candidate presented himself, but failed in the preliminary part of the examination.

TABLE G. (4).—COUNTY SURVEYORS IN IRELAND.

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Mathematics.	Mechanical Philosophy.	Experimental Science.	Geology, &c.	Strength of Materials.	Railway and Canal Engineering.	Marine Engineering.	Hydraulic Engineering.	County Works.	Total.
November 2, 1869.	**Maximum** - -	100	100	100	40	100	140	140	140	140	1000
Vernon-Harcourt; L. F. - - -	2 County Surveyorships in Ireland.	50	38	60	13	64	81	66	78	65	515
Humphreys; W. T. - - -		0	35	27	0	44	109	101	103	56	475
No. 3 - - - - -		19	0	0	15	68	81	95	97	74	449
No. 4 - - - - -		30	30	30	0	45	69	96	93	51	444
No. 5 - - - - -		53	38	28	8	49	79	40	59	58	412
No. 6 - - - - -		28	32	80	35	48	45	53	36	53	410
No. 7 - - - - -		0	30	20	0	67	70	66	88	64	405
No. 8 - - - - -		13	35	20	0	49	57	62	98	66	400
No. 9 - - - - -		23	27	0	0	49	57	90	77	62	385
No. 10 - - - - -		15	50	40	14	60	54	54	47	45	379
No. 11 - - - - -		12	0	25	15	34	77	52	85	69	369
No. 12 - - - - -		14	0	12	0	56	72	76	74	55	359
No. 13 - - - - -		20	37	0	0	34	91	70	—	60	312
No. 14 - - - - -		10	0	—	0	50	44	72	48	78	302
No. 15 - - - - -		15	0	30	0	49	58	64	—	53	269
No. 16 - - - - -		0	0	0	0	23	58	59	58	64	262
No. 17 - - - - -		0	0	20	8	27	49	49	68	40	261
No. 18 - - - - -		15	0	0	14	41	58	30	52	39	249
No. 19 - - - - -		11	25	13	0	29	—	43	66	42	229
No. 20 - - - - -		19	0	0	12	40	41	32	—	49	193
No. 21 - - - - -		0	0	20	0	18	36	23	30	34	161
No. 22 - - - - -		0	0	0	0	25	32	24	38	38	157
No. 23 - - - - -		0	0	0	0	32	32	21	26	30	141
No. 24 - - - - -		0	0	12	0	22	28	29	17	31	139
No. 25 - - - - -		0	0	0	0	13	23	18	41	40	135
No. 26 - - - - -		14	0	0	0	33	17	33	19	15	131

TABLE G. (5.)—NATIONAL EDUCATION OFFICE (IRELAND).

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Book-keeping.	Orthography.	English Composition.	English Grammar.	English Literature.	Rhetoric.	Euclid.	Algebra.	Trigonometry.	Geography.	English History.	Greek and Roman History.	Physical Science.	Logic.	Political Economy.	Total.
December 7, 1869.	**Maximum** - -	600	200	200	600	300	500	400	400	400	300	500	200	200	600	300	300	6000
No. 1 - - - -	A District Inspectorship of National Schools (Ireland).	0	72	185	540	170	380	280	0	0	0	420	180	120	0	240	165	2752
No. 2 - - - -		506	74	135	0	0	175	0	290	241	269	250	100	0	204	180	0	2424
February 15, 1870.																		
McMillen; W. - -	A District Inspectorship of National Schools (Ireland).	347	114	130	530	150	287	180	137	284	106	285	147	85	181	130	176	3269
No. 2 - - - -		487	110	180	450	165	0	150	348	261	121	265	133	75	229	105	101	3180
No. 3 - - - -		438	0	115	420	170	186	220	315	217	130	270	120	95	161	0	0	2857
May 10, 1870.																		
Steede; J. - - -	An Inspectorship of National Schools (Ireland).	572	82	190	510	170	280	240	378	308	233	360	125	145	150	110	185	4038
No. 2 - - - -		530	132	125	400	160	320	185	352	208	0	344	100	110	207	0	140	3313
No. 3 - - - -		289	74	195	520	165	240	190	180	0	0	400	180	170	0	240	195	3038
No. 4 - - - -		463	72	150	370	0	210	0	362	286	268	200	0	85	235	110	0	2811

TABLE G. (6.)—**NATIONAL EDUCATION OFFICE (IRELAND)**—*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	English Grammar.	English Composition.	Geography.	Précis.	Book-keeping.	English Literature.	French.	Latin.	Euclid.	Total.
December 14, 1869.	**Maximum** -	**350**	**100**	**100**	**100**	**150**	**150**	**150**	**200**	**200**	**150**	**200**	**200**	**200**	**2050**
*Lemass; P. - - -	A Clerkship.	327	96	85	100	106	135	134	175	144	146	85	—	148	1681
No. 2 - - - -		325	90	80	100	77	120	102	160	173	71	80	—	160	1538
No. 3 - - - -		271	95	85	100	77	140	128	130	116	78	60	—	133	1413
No. 4 - - - -		233	85	70	100	104	105	92	160	101	73	60	—	109	1292
No. 5 - - - -		0	65	0	100	75	120	66	130	103	63	—	105	111	938
No. 6 - - - -		0	0	0	60	0	110	0	0	0	0	0	—	0	170
April 12, 1870.															
*Sealy; J. E. - -	A Clerkship.	308	65	75	100	69	120	98	180	196	79	80	—	147	1517
No. 2 - - - -		265	100	88	100	69	80	125	180	144	83	55	—	103	1392
No. 3 - - - -		290	95	75	100	98	95	112	70	134	78	75	—	119	1341
No. 4 - - - -		249	80	67	100	82	110	112	165	152	0	60	—	150	1327
No. 5 - - - -		295	85	60	100	52	70	90	170	164	61	55	—	108	1310
No. 6 - - - -		229	96	50	96	50	105	65	140	118	50	95	—	120	1214
No. 7 - - - -		129	65	0	90	75	0	83	0	62	84	—	70	0	658
No. 8 - - - -		0	0	50	85	57	120	0	130	62	52	—	80	0	636

Table G. (7.)—**PARLIAMENT OFFICE.**

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Preliminary Examination.	Class A.			Class B.		Class C.		Class D.				Total.
			English Composition.	English Language.	English Literature.	Latin.	Greek.	Mathematics. Pure.	Mathematics. Mixed.	French.	German.	Italian.	Arabic.	
November 9, 1869.	**Maximum**	**1100**	**200**	**200**	**200**	**300**	**300**	**300**	**300**	**200**	**200**	**200**	**200**	**2300**
Austen-Leigh; W.	Two Clerkships.	1019	165	170	180	290	275	—	—	—	—	—	—	2099
*Jeune; J. F.		915	165	117	123	—	—	—	—	143	180	49	—	1692
No. 3.		858	—	—	—	—	—	180	160	137	133	167	—	1635
No. 4.		841	110	90	80	—	—	—	—	179	—	161	161	1622
No. 5.		809	100	100	133	245	230	—	—	—	—	—	—	1617
No. 6.		906	125	87	143	170	160	—	—	—	—	—	—	1591
No. 7.		830	105	103	117	165	260	—	—	—	—	—	—	1580
No. 8.		783	125	27	40	190	165	—	—	—	—	—	—	1330
No. 9.		713	110	53	39	—	—	—	—	150	87	—	—	1152

TABLE G. (8.)—ROYAL IRISH CONSTABULARY.

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Compound Addition.	Orthography.	Handwriting.	Intelligence (in Dictation and Orthographical Paper).	English Composition.	Geography.	Health.	Total.
July 20, 1869.	**Maximum** -	150	50	150	150	100	200	150	80	1030
Molony; W. W. F.	A Cadetship.	113	36	130	105	95	115	115	69	778
No. 2 - - -		109	14	110	120	85	95	105	67	705
No. 3 - - -		107	34	90	90	75	90	140	70	696
No. 4 - - -		68	36	0	75	80	90	70	60	479
April 12, 1870.										
Dunsterville; J. W. E.	A Cadetship.	136	42	142	120	100	110	115	70	835
No. 2 - - -		106	29	105	80	97	150	125	65	757
No. 3 - - -		80	29	90	100	93	130	115	68	705
No. 4 - - -		0	8	0	78	90	0	65	60	301
May 24, 1870.										
Hewgill; F. - -	3 Cadetships.	126	48	120	140	95	140	100	72	841
Turner; H. - -		122	34	127	115	100	150	106	75	829
Newell; A. C. -		112	42	150	95	100	125	116	74	814
No. 4 - - -		134	36	115	105	95	150	115	51	801
No. 5 - - -		126	34	145	90	95	150	82	77	799
No. 6 - - -		117	27	120	115	100	125	95	68	767
No. 7 - - -		117	39	140	95	95	130	96	52	764
No. 8 - - -		100	36	100	125	85	135	83	71	735
No. 9 - - -		99	40	105	105	95	110	104	58	716
No. 10 - - -		114	46	60	65	85	120	116	70	676
No. 11 - - -		82	16	95	80	80	100	58	75	586
No. 12 - - -		0	0	90	0	85	0	0	78	253
No. 13 - - -		0	0	0	75	70	0	0	73	218
No. 14 - - -		0	0	0	0	60	0	0	76	136

Table G. (9.)—Open Competitions for Situations in the Steam Factories.

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Orthography.	Handwriting.	Reading.	English Composition or Correspondence.	Grammar.	Geography.	French.	Euclid.	Algebra.	Total.
ADMIRALTY.												
December 7, 1869.	**Maximum**	250	100	100	100	100	100	100	150	300	300	1600
Harding; R. - -		242	100	95	75	65	66	77	145	279	253	1397
Adams; J. H. -		236	80	90	80	65	91	69	135	291	231	1368
Hammond; H. T. -		244	95	85	80	75	70	93	143	267	202	1354
Sparkes; G. - -		226	93	90	68	55	82	73	150	271	224	1332
Wheadon; W. B. -		220	100	80	82	60	77	91	135	178	252	1275
Aborn; T. L. - -		222	95	80	65	75	82	95	145	207	192	1258
Andrew; W. J. -		206	97	90	68	60	92	78	145	253	162	1251
Rampling; H. J. -		191	88	60	75	75	75	71	150	227	238	1250
White; W. W. - -		221	100	92	92	70	65	50	145	205	172	1212
Rabbidge; W. - -		225	88	64	68	85	85	97	120	211	166	1209
Graham; J. E. D. -		209	100	70	90	75	66	83	90	221	188	1192
No. 12 - - -		186	95	85	75	70	68	47	143	241	180	1190
No. 13 - - -		183	85	65	70	55	67	71	128	215	227	1166
No. 14 - - -		157	100	78	68	68	62	80	128	220	149	1110
		170	95	80	78	60	73	49	128	201	176	1110
No. 16 - - -		190	95	80	75	60	66	56	90	209	182	1103
No. 17 - - -		167	100	70	85	70	74	70	128	193	137	1094
No. 18 - - -		209	40	75	68	70	70	60	30	220	248	1090
No. 19 - - -		188	90	78	65	60	65	47	135	188	168	1084
No. 20 - - -		205	70	65	58	80	75	82	90	201	148	1074
No. 21 - - -		187	90	70	68	55	62	68	83	212	170	1065
No. 22 - - -		188	100	90	70	60	64	70	90	161	164	1057
No. 23 - - -	Engineer	202	80	85	70	70	53	36	90	204	148	1038
No. 24 - - -	Studentships	205	95	76	62	65	59	0	120	204	150	1036
No. 25 - - -	in the	215	100	70	60	40	78	73	38	200	132	1006
No. 26 - - -	Factories at	167	100	75	65	70	49	45	130	126	178	1005
No. 27 - - -	Portsmouth,	157	60	70	70	70	70	88	113	204	100	1002
No. 28 - - -	Keyham,	202	90	65	48	60	67	56	60	203	148	999
No. 29 - - -	and	145	90	65	75	65	71	76	75	165	152	979
No. 30 - - -	Sheerness.	148	60	70	80	70	52	35	90	201	152	958
No. 31 - - -		173	70	80	72	70	50	44	68	192	134	953
No. 32 - - -		127	90	75	70	75	60	51	90	182	132	952
No. 33 - - -		153	90	70	75	65	79	48	145	102	104	931
No. 34 - - -		174	80	70	70	75	46	43	83	119	170	930
No. 35 - - -		135	60	80	65	70	60	35	113	163	138	919
No. 36 - - -		103	60	65	60	66	69	76	83	202	134	918
No. 37 - - -		203	85	80	60	50	44	38	68	143	142	913
No. 38 - - -		99	85	70	85	70	64	41	143	139	116	912
No. 39 - - -		219	55	72	72	50	49	51	30	161	147	906
No. 40 - - -		159	50	80	75	60	57	52	45	129	176	883
No. 41 - - -		104	56	80	65	65	46	0	38	207	162	823
No. 42 - - -		201	80	85	70	65	57	0	0	121	119	798
No. 43 - - -		166	45	70	55	65	46	36	30	143	128	784
No. 44 - - -		153	80	75	72	70	52	42	98	0	118	760
No. 45 - - -		127	50	75	65	60	54	29	83	93	105	741
No. 46 - - -		179	80	85	62	60	46	29	30	0	140	711
No. 47 - - -		148	75	75	65	60	52	54	40	0	127	696
No. 48 - - -		108	50	60	72	50	51	48	30	80	139	688
No. 49 - - -		99	65	70	65	60	39	33	0	77	138	646
No. 50 - - -		121	40	60	70	40	40	26	0	0	94	491
No. 51 - - -		92	50	62	78	45	39	31	75	0	0	472
No. 52* - - -		80	40	70	75	50	47	23	30	0	0	415

* Twelve other candidates presented themselves, but failed in the preliminary part of the examination.

TABLE G. (9.)—Open Competitions for Situations in the Steam Factories —*continued.*

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Orthography.	Handwriting.	English Composition.	English Grammar.	Geography.	French.	Euclid.	Algebra.	Reading.	Total.
June 7, 1870.	**Maximum** -	250	100	100	100	100	100	150	300	300	100	1600
Alton; G. B. - -	Situation of Engineer Student.	233	85	85	90	76	75	150	300	269	78	1441
Green; N. E. - -		219	100	80	30	67	62	135	300	268	85	1346
Wood; W. - -		204	90	80	80	47	52	135	240	285	95	1308
Green; T. - -		227	100	80	46	54	54	135	265	257	50	1268
Grant; W. H. - -		224	70	70	60	65	87	105	235	278	50	1244
Thomas; J. P. - -		180	95	80	45	70	44	135	235	273	80	1237
Barry; G. W. - -		166	50	50	60	65	68	135	295	252	65	1206
Lonnon; W. - -		225	70	70	45	52	52	90	300	245	50	1199
Gallery; H. - -		245	45	65	42	49	59	30	265	235	70	1105
Taylor; H. - -		170	90	70	75	59	45	68	220	231	60	1088
Brown; J. W. - -		179	60	55	64	43	70	38	235	261	45	1050
No. 12 - - -		185	50	70	70	46	34	0	250	263	55	1023
Walton; J. H. - -		182	75	75	50	58	51	30	220	204	65	1010
Bailey; J. - -		212	50	65	60	47	33	30	140	191	55	933
Akaster; J. J. H.		189	40	70	46	35	48	33	200	171	60	892
Midgley; J. W.		153	95	75	70	36	51	36	155	166	55	892
No. 17 - - -		135	50	80	38	41	26	30	205	164	65	834
No. 18 - - -		194	25	55	20	36	34	0	165	241	60	830
No. 19 - - -		138	80	75	50	61	60	85	90	125	60	824
No. 20 - - -		182	50	65	55	45	37	60	125	146	55	820
No. 21 - - -		130	40	60	50	65	47	105	135	111	75	818
No. 22 - - -		194	30	75	40	45	42	0	175	154	50	807
No. 23 - - -		161	60	60	56	38	36	0	185	151	55	802
No. 24 - - -		176	25	65	52	53	41	0	115	212	60	799
No. 25 - - -		117	70	60	68	47	33	68	165	108	60	796
No. 26 - - -		164	40	70	65	47	54	45	75	136	45	741
No. 27 - - -		137	45	80	45	48	29	0	110	159	80	733
No. 28 - - -		130	60	75	30	29	37	0	80	131	75	647
No. 29 - - -		155	50	60	45	36	21	45	0	144	60	616
No. 30 - - -		0	50	55	65	52	45	105	130	0	95	597
No. 31* - - -		77	85	50	75	43	33	0	80	0	75	518

* Ten other candidates presented themselves, but failed in the preliminary part of the examination.

Note.—The Civil Service Commissioners have also conducted certain examinations (of which the following is a list) of candidates for promotion in the several dockyards and victualling yards under the Admiralty.

(In these examinations the papers in professional subjects are prepared and valued at the Admiralty.)

Date.	Place of Examination.	Dockyard in which Promotion was sought.	Dockyard to which the Competitors belonged.	Class of Situation.	Number of Candidates examined.
1869.					
July -	Deptford -	Deptford -	Royal Victoria Victualling Yard.	Second-class storehouseman - -	4
Aug. -	Plymouth -	Plymouth -	Royal William Victualling Yard.	Leading man of labourers - -	5
Nov. -	Portsmouth -	Portsmouth -	Portsmouth - -	Second class storehouseman - -	3
Dec. -	Devonport -	Devonport -	Devonport - -	" " - -	6
" -	Plymouth -	Plymouth -	Royal William Victualling Yard.	Second-class leading man of storehouses.	4
1870.					
Feb. -	" -	" -	"	Second-class storehouseman - -	3
March -	" -	" -	"	Leading man of coopers - -	4
" -	Pembroke -	Pembroke -	Pembroke - -	" storehouses - -	1
" -	Plymouth -	Plymouth -	Royal William Victualling Yard.	Second-class storehouseman - -	4
April -	Devonport -	Devonport -	Devonport - -	Leading man of riggers - -	7
" -	Pembroke -	Pembroke -	Pembroke - -	Second-class storehouseman - -	1
" -	Sheerness -	Sheerness -	Sheerness - -	" " " - -	6
				Total - -	48

LIST of ALL PERSONS who have obtained CERTIFICATES of QUALIFICATION for CLERKSHIPS and similar APPOINTMENTS in the various PUBLIC DEPARTMENTS between 1st July 1869 and 3rd June 1870.

* Candidates whose names are preceded by this sign (*) obtained honorary additions to their Certificates, either for proficiency in extra subjects chosen by themselves, or for marked proficiency in prescribed subjects.

† Candidates whose names are preceded by this sign (†) obtained appointments as the result of *limited competition*.

‡ Candidates whose names are preceded by this sign (‡) obtained appointments as the result of *open competition*.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
A.			
Adams; James	Inland Revenue	Assistant of Excise	1869, July 14.
Aitken; Charles Colquhoun	Post Office	Surveyor's Stationary Clerk (West Indies).	— Nov. 15.
Alexander; (Lieut.) Alfred Gordon.	Convict Service	Deputy Governor, Dartmoor Prison.	— Dec. 20.
Allan; Alexander	Inland Revenue	Assistant of Excise	1870, April 25.
Allen; Benjamin	Do.	Do.	— Jan. 17.
†Allen; Benjamin	Public Works Loan Office.	Clerk	— Jan. 24.
Allen; Thomas Camel	Inland Revenue	Assistant of Excise	— June 1.
Almond; Edward Russell	Post Office	Provincial (Sorting) Clerk	1869, Dec. 3.
Anderson; John Begg	Inland Revenue	Assistant of Excise	— Dec. 8.
Anderson; William	Do.	Do.	— Nov. 26.
†Anderson; William Mortimer.	Paymaster-General's Office.	Clerk	— Dec. 7.
Andrews; John	Inland Revenue	Assistant of Excise	1870, April 1.
Appelbe; William Kent	Do.	Do.	1869, Nov. 27.
Aria; Thomas	Do.	Do.	1870, May 12.
*†Arnold; Charles Henry	Convict Service	Clerk	1869, July 2.
Arnold; Henry Walter	Post Office	Clerk (Savings Bank)	— Dec. 17.
Arthy; Henry Francis	Do.	Provincial Clerk	1870, May 20,
Ashford; Walter	Customs	Writer (Temporary)	1869, Aug. 4.
Askew; Robert	Inland Revenue	Assistant of Excise	— Aug. 24.
Atkinson; Robert	Do.	Do.	1870, March 14.
Atyeo; Thomas	Do.	Do.	1869, Aug. 30.
†Austen-Leigh; William	Parliament Office	Clerk	— Nov. 26.
†Ayliffe; Harry James	Education Office	Junior Assistant Clerk	— Sept. 7.
B.			
Babington; Augustus Gisborne.	Post Office	Supplementary Clerk (Savings Bank).	1869, July 20.
Backler; William Henry	Do.	Provincial Clerk	— Nov. 17.
Backshell; Leon William	Inland Revenue	Assistant of Excise	1870, Jan. 14.
Badham; Richard Charles	Do.	Do.	— March 14.
Bain; James	Do.	Do.	— April 21.
Bakewell; Herbert James	Admiralty	Draughtsman (Steam Branch of the Office of Chief Constructor of Navy).	1869, Aug. 24.
*†Ball; Henry Wyndham	Registry of Deeds (Ireland).	Clerk	— Dec. 8.
Ball; Seymour	Paymaster-General's Office.	Do.	— Sept. 14.
Ball; Seymour	Inland Revenue	Clerk (Accountant-General's Department).	1870, Feb. 1.
Ball; Thomas Edmund	Do.	Assistant of Excise	— Jan. 14.
Bannister; Edward	Post Office	Provincial (Sorting) Clerk	— April 20.
Barber; Charles Henry	Inland Revenue	Assistant of Excise	— Jan. 11.
Barnard; John James	Post Office	Clerk (Savings Bank)	1869, Dec. 21.
Barnett; Bryan	Inland Revenue	Assistant of Excise	1870, May 24.
*†Barrett; Arthur Richard	Exchequer and Audit Office.	Clerk	— May 26.
Bartholomew; Charles Eugene.	Local Government Act Office.	Do.	1869, Aug. 13.
Bayly; Charles William Webb.	Admiralty	Writer (Temporary)	1870, Feb. 18.
Beatson; John James	Post Office	Provincial (Sorting) Clerk	— Feb. 10.
Beatson; John James	Inland Revenue	Assistant of Excise	— March 29.
Beatt; Thomas	Do.	Do.	— Jan. 12.
Beatty; John Charles	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
Becher; Henry Charles Harman.	Customs	Writer (Temporary)	— Aug. 5.
Bell; George Turner	Inland Revenue	Assistant of Excise	1870, May 26.
Bell; James	Do.	Do.	1869, Nov. 24.
Bell; John Baines Graham	Do.	Do.	— Dec. 18.
Bell; (Capt.) John Frederick	Convict Service	Deputy Governor, Dartmoor Prison.	1870, April 14.
Bell; John Robert	Customs	Writer (Temporary)	1869, Aug. 6.
Bell; William	Inland Revenue	Assistant of Excise	1870, Jan. 3.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
Bennett; Frederick	Post Office	Clerk (Secretary's Office)	1869, July 26.
Bent; Herbert	Inland Revenue	Assistant of Excise	1870, May 12.
Berry; William	Do.	Do.	1869, Aug. 18.
Black; John	Do.	Do.	— Sept. 21.
Blake; Valentine Charles	Registrar-General's Office (Ireland).	Temporary Clerk	— July 17.
Blakeney; Charles Altavilla	Consular Service	Vice-Consul (Missolonghi)	— Sept. 21.
Blunden; Arthur Henry	Inland Revenue	Assistant of Excise	1870, Feb. 21.
*Boland; William	Do.	Do.	1869, July 17.
Bole; John	Admiralty	Writer (Temporary)	— July 5.
Bolton; Joseph	Inland Revenue	Assistant of Excise	— Nov. 13.
Bonham; Sir George Francis	Diplomatic Service	Attaché	— Sept. 7.
Boor; Edward George	Inland Revenue	Assistant of Excise	1870, Jan. 6.
Bostock; William Henry	Do.	Do.	— Jan. 6.
Boultbee; James William	Metropolitan Police Commissioner's Office.	Temporary Clerk in Registry of Habitual Criminals.	— Jan. 27.
Bowles; Richard Henry	Post Office	Provincial Clerk	— March 9.
Brabrook; Edward William	Friendly Societies' Registry.	Chief Clerk and Assistant Registrar.	1869, July 12.
Bracken; John	Inland Revenue	Assistant of Excise	— July 19.
Brady; Andrew Newton	Fisheries Office (Ireland).	Clerk	1870, Feb. 21.
Brady; George James	Convict Service	Do.	1869, Sept. 3.
Brailey; Charles	Inland Revenue	Assistant of Excise	1870, April 12.
Braithwaite; John	Do.	Do.	— Feb. 22.
Brearley; William	Do.	Do.	1869, Nov. 20.
Brennan; John	Habitual Criminals Registry (Ireland).	Clerk	1870, April 1.
Bristow; George Frederick	Admiralty	Writer (Temporary)	— May 30.
Britten; James	Office of Works	Second Assistant in Kew Herbarium.	1869, Aug. 24.
Brooking; Tom	Inland Revenue	Assistant of Excise	— Dec. 17.
Broom; Russell	Seamen's Registry Office.	Temporary Clerk	1870, March 29.
Brown; David	Post Office	Provincial Clerk	1869, Sept. 7.
Brown; John Densley	Admiralty	Writer (Temporary)	— July 21.
Brown; Joseph Philip	Post Office	Provincial Clerk	— Nov. 30.
Brown; Thomas	Inland Revenue	Assistant of Excise	1870, April 21.
Brown; William Martin	Admiralty	Writer (Temporary)	1869, July 2.
Browne; John Neil	Board of Supervision (Scotland).	Clerk	— Dec. 24.
Burge; Edward	Inland Revenue	Assistant of Excise	1870, Jan. 15.
Butler; John	Post Office	Provincial (Sorting) Clerk	1869, Dec. 29.
Byrne; John	Customs	Writer (Temporary)	— July 8.
C.			
Cadwallader; John	Inland Revenue	Assistant of Excise	1869, Aug. 5.
Calderhead; James	Do.	Do.	— Sept. 28.
Callender; Adam	Post Office	Provincial (Sorting) Clerk	— Dec. 31.
Cameron; John	Do.	Do.	— Aug. 6.
Canham; Robert	Inland Revenue	Assistant of Excise	— Dec. 22.
Carr; John Henderson	Customs	Writer (Temporary)	1870, Jan. 13.
Carter; Alfred John	Inland Revenue	Assistant of Excise	1869, July 13.
Carter; John James	Do.	Do.	1870, March 24.
†Catling; Henry	Do.	Clerk (Legacy Duty Office)	— May 20.
Challens; Edmund	Education Office	Inspector's Assistant	— Feb. 24.
Chapman; Thomas James	Inland Revenue	Assistant of Excise	— Jan. 10.
Charlton; Henry Edward	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
Clark; George	Do.	Supplementary Clerk (Savings Bank).	— July 20.
†Clark; James Peter	Poor Law Commission (Ireland).	Extra Clerk	— Sept. 17.
†Clark; Walter	Science and Art Department.	Clerk in the Edinburgh Museum of Science and Art.	— Sept. 7.
Clarke; Charles Henry	Inland Revenue	Assistant of Excise	1870, March 25.
Clarke; John Thomas	Post Office	Provincial Clerk	— Jan. 8.
Clarke; Walter	Inland Revenue	Assistant of Excise	— Jan. 3.
Clemens; John Matthew	Do.	Do.	1869, Sept. 28.
Clutterbuck; James Jaques	Do.	Do.	— Dec. 30.
Cock; Joseph	Do.	Do.	1870, May 16.
Coe; Joshua Jonah	Admiralty	Writer (Temporary)	1869, Aug. 9.
Colgate; Henry	Post Office	Clerk (Saving Banks)	— Dec. 17.
Collings; Joseph Becket Edmund William.	Home Office	Extra Clerk	— July 3.
Comrie; John	Inland Revenue	Assistant of Excise	1870, March 12.
†Constantine; Augustus William.	Convict Service	Clerk	1869, July 6.
Cook; Thomas John	Inland Revenue	Assistant of Excise	— Sept. 14.
†Cooke; Rowland Henry Pytt.	Registrar General's Office (England).	Clerk	— Aug. 2.
Cooke; William James	Paymaster-General's Office.	Do.	1870, Feb. 2.
Costello; Patrick	Inland Revenue	Assistant of Excise	1869, Dec. 31.
Cotter; James Joseph	Do.	Do.	— Oct. 14.
Cowling; Francis Allen	Metropolitan Police Commissioners' Office.	Supplementary Clerk	1870, May 2.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
Craig; Owen	Inland Revenue	Assistant of Excise	1870, April 5.
Crane; Albert Charles	Customs	Writer (Temporary)	1869, Aug. 26.
*†Crawford; James Dundas	Consular Service	Student Interpreter (China and Japan).	1870, March 19.
Crawford; Reginald Lindsay Verscoil.	Metropolitan Police Office.	Supplementary Clerk	— May 23.
Creighton; Donald	Post Office	Provincial Clerk	1869, Aug. 30.
Crimp; Herbert Drew	Admiralty	Writer (Temporary)	— July 29.
†Crocker; William Henry	Education Office	Junior Assistant Clerk	— Sept. 3.
Cross; William Benfield	Inland Revenue	Assistant of Excise	— Sept. 17.
Cross; William Harris	Do.	Do.	1870, Jan. 3.
Crosse; Henry	Do.	Do.	— Feb. 4.
Cullen; Michael	Do.	Do.	1869, July 22.
Cundall; Herbert Minton	Science and Art Department.	Museum Clerk	— Nov. 10.
Cureton; James Edwin	British Museum	Assistant	— Sept. 21.
Curnow; Henry	Post Office	Clerk (Savings Bank)	— Dec. 17.
Curtayne; John Joseph	Do.	Do.	— Dec. 17.
D.			
Dalby; Frederick	Post Office	Travelling Sorter	1869, Oct. 21.
*†Dale; Wyndham Francis	Exchequer and Audit Office.	Clerk	1870, Feb. 18.
Dalzell; John	Inland Revenue	Assistant of Excise	1869, Nov. 5.
D'Arcy; Edward	Do.	Do.	1870, March 22.
Darnley; James	Do.	Do.	— Jan. 10.
Davenport; James	Do.	Do.	— April 21.
Davenport; John	Post Office	Provincial (Sorting) Clerk	— March 23.
Davies; Nathaniel	Do.	Supplementary Clerk (Savings Bank).	1869, July 20.
Davis; Henry Wilson	Inland Revenue	Assistant of Excise	1870, Feb. 7.
†Dawe; John	Convict Service	Clerk	1869, July 2.
Dawson; Joseph Thompson	Inland Revenue	Assistant of Excise	1870, May 24.
Dean; Frederick	Post Office	Supplementary Clerk (Savings Bank).	1869, July 20.
De la Hunt; Denis Joseph	Inland Revenue	Assistant of Excise	1870, March 9.
Delaney; Joseph Tynan	Do.	Do.	1869, Aug. 20.
Delany; Michael	Do.	Do.	1870, May 25.
De L'or; Edward	Mint	Writer (Temporary)	— Jan. 11.
De Molines; William Hilary Baliol.	Diplomatic Service	Attaché	1869, Nov. 29.
*†Dennniford; Richard	Seamen's Registry Office.	Clerk	— Oct. 25.
Dick; William	Post Office	Provincial Clerk	— Sept. 10.
*Doggett; Harold	Do.	Assistant of Excise	1870, March 31.
†Dolton; David	Education Office	Junior Assistant Clerk	1869, Sept. 7.
Dooley; James	Inland Revenue	Assistant of Excise	— Aug. 20.
Down; William	Do.	Do.	1870, March 30.
Du Faur; Frederick Miguel	Mint	Writer (Temporary)	— March 31.
Dundas; Charles Saunders	Consular Service	Consul (Santos)	1869, Oct. 15.
Dyson; Frank Bouverie	Probate Court	Clerk	— Dec. 20.
E.			
†Eagar; Geoffrey Edward	Registrar-General's Office (Ireland).	Clerk	1870, April 25.
Earthy; William George Nixon.	Inland Revenue	Assistant of Excise	— April 30.
Eden; Charles	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
†Edrupt; Richard William	Education Office	Junior Assistant Clerk	— Dec. 2.
Edwards; Henry Exley	Probate Court	Clerk	— Dec. 9.
Ellis; Frederick	Inland Revenue	Assistant of Excise	1870, Jan. 3.
Ellis; Joseph Robert George	Do.	Do.	1869, Sept. 24.
Emberton; Thomas	Post Office	Provincial (Sorting) Clerk	— July 6.
Emmerson; George Shelton	Inland Revenue	Assistant of Excise	1870, March 28.
*Engelbach; Alfred Henry Hunter.	Colonial Office	Clerk (Accountant's Branch)	1869, Dec. 29.
Esam; James Edward	Customs	Writer (Temporary)	1870, March 29.
Evans; Frederick	Admiralty	Do.	1869, Aug. 30.
Evanson; Wyndham Alleyn Daubeny.	Post Office	Clerk (Savings Bank)	— Dec. 17.
Every; (Captain) Oswald William.	Convict Service	Deputy Controller (Gibraltar)	1870, April 30.
Ewart; Thomas	Customs	Writer (Temporary)	1869, Aug. 3.
F.			
Fagan; Louis Alexander Maria.	British Museum	Junior Assistant	1869, Sept. 3.
†Fallon; Richard Joseph	Exchequer and Audit Office.	Clerk	— Sept. 17.
Falvey; Jeremiah	Inland Revenue	Assistant of Excise	1870, Jan. 5.
Fann; John William	Customs	Writer (Temporary)	— May 21.
†Farmer; James Skinner	Post Office	Supplementary Clerk (Savings Bank).	1869, Aug. 9.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
Farmer; Peter	Post Office	Provincial Clerk	1869, Sept. 10.
Feild; Edward James	British Museum	Junior Assistant	— Sept. 14.
Feltus; Thomas	Post Office	Provincial Clerk	— Aug. 18.
*†Fenton; Thomas Charles	Convict Service	Clerk	— July 6.
Fisher; Henry	Inland Revenue	Assistant of Excise	1870, May 13.
Fisher; Peter	Do.	Do.	— Jan. 12.
Fitz-Gibbon; Gerald	Do.	Do.	1869, Sept. 24.
†Fleury; Ernest Richard	Paymaster-General's Office.	Clerk	1870, Jan. 11.
Flynn; Bernard	Inland Revenue	Assistant of Excise	1869, Aug. 26.
Foord; Alfred Stanley	Admiralty	Writer (Temporary)	— Dec. 13.
Forbes; James	Inland Revenue	Assistant of Excise	1870, Jan. 17.
Ford; William	Prisons Board (Scotland).	Teacher	— May 30.
Forrester; James Lawson Henderson.	Inland Revenue	Assistant of Excise	— Feb. 2.
Foster; John Henry	Customs	Writer (Temporary)	1869, Aug. 12.
Freegard; Edwin Thomas	Inland Revenue	Assistant of Excise	1870, Jan. 12.
Frisken; Peter	Do.	Do.	1869, July 20.
Fulford; Henry	Admiralty	Writer (Temporary)	1870, May 20.
Fulkes; George	Parliament Office	Temporary Assistant Clerk of Accounts.	— May 14.
Fuller; William	Inland Revenue	Assistant of Excise	— Jan. 29.
Furlong; Martin Stephen	Do.	Do.	1869, July 7.
G.			
Galliford; James Edward	Inland Revenue	Assistant of Excise	1869, Aug. 9.
Gardiner; Malachi	Do.	Do.	1870, Feb. 22.
Garsia; Francis George	War Office	Issuer in the Control Department.	— March 31.
†Gaunt; Joseph Butler	Seamen's Registry	Temporary Clerk	1869, Oct. 22.
Gell; Thomas	Admiralty	Writer (Temporary)	1870, May 20.
Gilbert; Richard	Post Office	Provincial Clerk	— May 25.
Giles; John Douglas	Do.	Clerk (Secretary's Office)	1869, Dec. 2.
Gillespie; Andrew	Inland Revenue	Assistant of Excise	1870, March 22.
Glasier; Richard	Do.	Do.	— May 24.
Glegg; John Baskervylle	Admiralty	Writer (Temporary)	1869, Nov. 3.
*†Glyn; Charles Clayton	Exchequer and Audit Office.	Clerk	1870, May 26.
*†Godby; Hardy Augustus	Post Office	Clerk (Money Order Office)	— April 9.
Goddard; Henry Samuel	Inland Revenue	Assistant of Excise	— March 1.
Godfrey; John Henry	Customs	Writer (Temporary)	— May 20.
Goodfellow; Frederick	Inland Revenue	Assistant of Excise	— Jan. 12.
Goodger; Arthur	Post Office	Provincial (Sorting) Clerk	1869, Dec. 1.
Goodhart; Herbert Synnot	Ecclesiastical Commission.	Temporary Clerk	— Dec. 22.
Goschen; William Edward	Diplomatic Service	Attaché	— Nov. 29.
Gough; John Richard	Post Office	Provincial (Sorting) Clerk	1870, March 11.
Grace; William Lee	Paymaster-General's Office.	Clerk	1869, Sept. 14.
Gracewood; Alfred	Inland Revenue	Assistant of Excise	1870, April 14.
†Graham; Frederick	Colonial Office	Clerk	— May 30.
Graham; James Paton	Post Office	Provincial (Sorting) Clerk	1869, July 19.
Grant; Francis Holt	Board of Trade	Temporary Clerk	— Dec. 4.
*†Graves; Alfred Percival	Home Office	Clerk	1870, Feb. 4.
Gray; Nathaniel	Admiralty	Writer (Temporary)	1869, Dec. 16.
†Green; Henry Watkins	Colonial Office	Writer (Ceylon)	1870, Jan. 24.
Green; John	Convict Service	Schoolmaster	1869, July 6.
Grene; Henry Alexander	Post Office	Clerk (Savings Bank)	— Dec. 17.
Grestock; Hugh	Customs	Writer (Temporary)	— Aug. 26.
Griffy; Daniel	Inland Revenue	Assistant of Excise	— Dec. 31.
H.			
Hackett; John Edwin	Inland Revenue	Assistant of Excise	1869, July 8.
Hadley; Lucy	Post Office	Provincial Clerk	1870, May 27.
Hague; Thomas William	Inland Revenue	Assistant of Excise	1869, July 23.
Hair; William John Charles	Admiralty	Writer (Temporary)	— Dec. 17.
Hall; George	Inland Revenue	Assistant of Excise	1870, May 12.
Hall; Joseph Samuel	Customs	Writer (Temporary)	— Feb. 1.
Hamill; Philip	Inland Revenue	Assistant of Excise	— May 19.
Hamilton; Andrew	Customs	Writer (Temporary)	— April 25.
Hannan; Francis James Henry.	Registry of Petty Sessions Clerks (Ireland).	Temporary Clerk	— March 19.
Harding; Henry Wintfield	Customs	Writer (Temporary)	1869, Sept. 24.
Harper; John Sedgwick	Admiralty	Do.	— July 2.
Harral; William	Inland Revenue	Assistant of Excise	1870, Jan. 3.
Harries; Daniel	Do.	Do.	— Jan. 3.
Harris; William	Do.	Do.	— May 21.
†Harrison; William James	Education Office	Junior Assistant Clerk	1869, Sept. 7.
†Harvey; William Alfred	Do.	Do.	— Aug. 30.
Harwood; Thomas	Inland Revenue	Assistant of Excise	1870, March 24.
Hasset; John	Do.	Do.	— Feb. 23.
Hawkey; John Williams	Do.	Do.	1869, Sept. 28.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
Hawkins; Charles Edward	Science and Art Department.	Assistant Geologist	1869, July 12.
†Hayes; Albert Thomas	Friendly Societies Registry.	Temporary Clerk	— Dec. 1.
Hayes; Michael	Paymaster-General's Office.	Do.	1870, May 9.
Hayward; John Clough	Post Office	Supplementary Clerk (Savings Bank).	1869, July 20.
Henderson; Patrick	Consular Service	Vice-Consul (Bengazi)	1870, Jan. 25.
†Hendley; Samuel	Post Office	Clerk (Money Order Office)	— May 25.
Henley; (Honourable) Frederick.	Diplomatic Service	Attaché	1869, Oct. 8.
Henry; John	Post Office	Provincial Clerk	1870, March 18.
Hepburn; William	Inland Revenue	Assistant of Excise	— March 4.
*Hertslet; Reginald Henry	Foreign Office	Temporary Clerk (Librarian's Department).	— May 20.
Hewitt; Arthur Young	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
Higgs; Edward	British Museum	Junior Assistant	— Aug. 20
Hildersley; Thomas Bartholomew.	Civil Service Commission.	Boy Writer	1870, March 28.
Hill; Edward	Post Office	Provincial Clerk	— Jan. 8.
Hill; Edward Cleary	Lunacy Commission	Clerk	1869, Oct. 21.
Hill; George Henry	Metropolitan Police Commissioner's Office.	Temporary Clerk in Registry of Habitual Criminals.	1870, April 11.
Hill; James Macqueen	Inland Revenue	Assistant of Excise	— May 21.
Hill; Theophilus	Do.	Do.	— Feb. 4.
†Hillier; Charles Thomas	Post Office	Supplementary Clerk (Savings Bank).	1869, Aug. 20.
Hilton; Edwin Charles	Customs	Writer (Temporary)	1870, Feb. 8.
Hockey; George	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
*Hoctor; William Francis	Inland Revenue	Assistant of Excise	— Dec. 23.
Hodges; George	Do.	Do.	1870, March 24.
Hodgkinson; John	Post Office	Provincial (Sorting) Clerk	1869, Nov. 22.
Hogger; George	Convict Service	Schoolmaster	1870, May 26.
Holloway; William Henry	Science and Art Department.	Assistant Geologist	1869, July 12.
†Holmes; Joseph James	Convict Service	Schoolmaster	— Aug. 24.
Hooper; William Abraham	Post Office	Provincial (Sorting) Clerk	1870, April 20.
Horan; Henry	Inland Revenue	Assistant of Excise	1869, Aug. 20.
Horder; Francis	Do.	Do.	— July 22.
†Horner; Benjamin	Education Office	Junior Assistant Clerk	— Sept. 3.
Horton; Frederick George	Civil Service Commission.	Boy Writer	1870, March 28.
Horwill; George	Inland Revenue	Assistant of Excise	— March 25
Houndle; Henry Charles Herman Hawker.	Adjutant-General's Office.	Supplemental Clerk	1869, July. 3.
†Houndle; Henry Charles Herman Hawker.	Local Government Act Office.	Do.	— July 14.
Howard; Edward Hornsey	Education Office	Inspector's Assistant	1870, Jan. 10.
Huddart; John	Inland Revenue	Assistant of Excise	1869, Nov. 29.
Hughes; Robert Bickley	Post Office	Clerk (Savings Bank)	— Dec. 17.
Hume; Charles Alfred	Do.	Provincial (Sorting) Clerk	1870, April 13.
‡Humphreys; Henry Temple	—	County Surveyor in Ireland	1869, Dec. 22.
Hunt; Joseph	Civil Service Commission.	Boy Writer	1870, March 28.
Hunter; James	Customs	Writer (Temporary)	1869, Nov. 8.
Hunter; James Grieveson	Post Office	Provincial Clerk	1870, Jan. 11.
Hurley; Patrick	Inland Revenue	Assistant of Excise	— March 24.
I.			
Innes; John	Inland Revenue	Assistant of Excise	1869, July 13.
Ivinson; Frederick Joseph	Do.	Do.	— Dec. 30.
J.			
James; Charles	Inland Revenue	Assistant of Excise	1869, Nov. 15.
*†Jeayes; Isaac Herbert	Convict Service	Clerk	— July 6.
Jerdan; Samuel Smiles	Inland Revenue	Assistant of Excise	— July 30.
*†Jeune; John Frederic	Parliament Office	Clerk	— Nov. 19.
John; William	Admiralty	Draughtsman (Department of the Chief Constructor of the Navy).	— Sept. 3.
Johns; Robert Magrath	Charity Commission	Clerk	— Dec. 4.
Johnson; John Morgan	Post Office	Provincial Clerk	1870, March 23.
*Johnston; John Octavius	Do.	Supplementary Clerk (Savings Bank).	1869, July 20.
Jones; Benjamin	Do.	Provincial Clerk	1870, Jan. 17.
Jones; Edmond Stanley Radziwill.	Seamen's Registry Office.	Temporary Clerk	1869, Dec. 11.
Jones; Howard	Inland Revenue	Assistant of Excise	1870, Jan. 22.
Jones; John	Do.	Do.	— Jan. 14.
Jones; Robert Henry	Do.	Do.	1869, Oct. 5.
Jones; William	Civil Service Commission.	Boy Writer	1870, March 28.
†Juleff; James	Convict Service	Clerk	— March 9.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
K.			
*†Kearns; Henry	Paymaster-General's Office.	Clerk	1869, Oct. 15.
Kelly; James Henry	Inland Revenue	Assistant of Excise	1870, May 24.
Kelly; Maurice	Admiralty	Writer (Temporary)	— May 20.
Kemp; George	Inland Revenue	Assistant of Excise	1869, Nov. 15.
Kendall; Charles	Metropolitan Police Commissioner's Office.	Registrar of Habitual Criminals.	1870, Feb. 16.
Kent; Frederick George	Customs	Writer (Temporary)	— May 31.
Kent; William Savill	British Museum	Junior Assistant	1869, Sept. 17.
King; George Ernest	Inland Revenue	Assistant of Excise	— Aug. 13.
King; Uriah	Admiralty	Writer (Temporary)	— Nov. 10.
Kinnach; Charles	Inland Revenue	Assistant of Excise	1870, Jan. 10.
‡Knight; James William	Probate Court	Writing Clerk	— Feb. 18.
Knox; James	Customs	Writer (Temporary)	— Feb. 23.
L.			
†Lagden; Godfrey Yeatman	Post Office	Supplementary Clerk (Savings Bank).	1869, Aug. 20.
Lamb; David	Do.	Provincial Clerk	— Nov. 29.
Lambton; James Johnson	Inland Revenue	Assistant of Excise	1870, March 31.
Lander; William Lawrence	Do.	Do.	— Jan. 19.
*†Lane; Elihu Burritt	Registrar-General's Office (England)	Index Compiler	1869, Oct. 6.
Lane; George	Post Office	Provincial (Sorting) Clerk	— Oct. 11.
Langford; Charles	Inland Revenue	Assistant of Excise	1870, March 31.
Lanham; Esther Ann	Convict Service	Schoolmistress	— Feb. 14.
Layard; John Granville	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
Leahy; William	Inland Revenue	Assistant of Excise	— Dec. 22.
*†Leech; Michael Thomas	Registrar-General's Office (Ireland).	Clerk	1870, March 22.
*Lee-Hamilton; Eugene James.	Diplomatic Service	Attaché	1869, Sept. 7.
Lees; Henry Rowland John	Post Office	Clerk (Savings Bank)	— Dec. 17.
Leggett; Nassau	Inland Revenue	Assistant of Excise	— Nov. 5.
Leggett; (Capt.) Robert Aufrere.	Convict Service	Deputy Governor, Portland Prison.	1870, Jan. 17.
*†Lemass; Peter	National Education Office (Ireland).	Clerk	— Jan. 5.
Lever; Charles Joseph	Patent Office	Extra Clerk	1869, Dec. 14.
Ley; Jabez	Inland Revenue	Assistant of Excise	— Oct. 1.
Littlebury; Frederick Augustus.	Do.	Do.	1870, Jan. 14.
Littlewood; Oliver	Post Office	Provincial (Sorting) Clerk	1869, Sept. 14.
†Lloyd; Frederick	Do.	Clerk (Savings Bank)	— Dec. 22.
‡Loughnan; Joseph Maher	Royal Irish Academy	Clerk	— July 3.
Lovell; William Stanhope	Inland Revenue	Assistant of Excise	1870, May 20.
M.			
McArdle; Patrick	Inland Revenue	Assistant of Excise	1869, July 5.
McArthur; James	Do.	Do.	1870, Jan. 15.
McCartan; Francis Boyd	Do.	Do.	1869, Dec. 1.
McCarthy; Joseph	Customs	Writer (Temporary)	1870, May 23.
*†McClatchie; Thomas Russell Hill.	Consular Service	Student Interpreter (China and Japan).	— March 17.
McComish; Patrick	Inland Revenue	Assistant of Excise	1869, Oct. 25.
McDermott; Mary	Convict Service	Schoolmistress	— Aug. 6.
Macdonald; John Alexander Charles.	Mint	Writer	1870, April 8.
McDougall; Niel	Admiralty	Draughtsman (Steam Branch Office of Chief Constructor of Navy).	1869, Aug. 30.
McDowell; Thomas	Customs	Writer (Temporary)	1870, May 3.
MacDuff; Alexander	Post Office	Provincial Clerk	1869, Dec. 29.
*†Mace; Thomas James	Paymaster General's Office.	Clerk	— Oct. 15.
†Macfarlan; Hugh	Inland Revenue	Assistant Surveyor of Taxes (Scotland).	— July 13.
McGoldrick; James	Do.	Assistant of Excise	— Aug. 24.
Maclean; Lachlan William Baker.	Post Office	Boy Clerk	1870, May 17.
McLean; Samuel	Inland Revenue	Assistant of Excise	— April 25.
Macmillan; Angus Alexander	Paymaster General's Office.	Clerk	— April 29.
†McMillen; William	National Education Office (Ireland).	Inspector of National Schools	— March 26.
McParland; Thomas Patrick	Inland Revenue	Assistant of Excise	— May 13.
†McSheahan; Denis Joseph	Poor Law Commission, Ireland.	Extra Clerk	— March 30.
Magrane; James	Inland Revenue	Assistant of Excise	— May 23.
†Maguire; Joseph	Registry of Deeds (Ireland).	Clerk	1869, Dec. 13.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
†Mahoney; Joseph	Inland Revenue	Assistant of Excise	1869, Nov. 15.
Major; Maximus Drake	War Office	Commissariat Issuer	— Sept. 14.
†Mansfield; Robert William	Foreign Office	Student Interpreter (China and Japan).	1870, March 24.
Mant; Charles	Inland Revenue	Assistant of Excise	1869, Oct. 9.
†Martelli; Thomas Mathias	Registry of Petty Sessions Clerks (Ireland).	Clerk	1870, Feb. 9.
Martin; Richard	Inland Revenue	Assistant of Excise	1869, Aug. 10.
*†Martin; William Moritz	Exchequer and Audit Office.	Clerk	— July 22.
Maslin; William Henry	Inland Revenue	Assistant of Excise	1870, Feb. 28.
Mason; William Henry	Do.	Do.	— Feb. 21.
Mathias; Hayward William	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
Maudsley; Frederick	Mint	Clerk	— Nov. 27.
Mayhew; Thomas Phillips	Post Office	Provincial (Sorting) Clerk	— July 22.
†Maywood; Henry John	Education Office	Junior Assistant Clerk	— Dec. 3.
Meggs; William Thomas	Do.	Inspector's Assistant	— Sept. 17.
†Micklewood; George	Registrar General's Office (England).	Clerk	— Oct. 13.
Mills; Joseph Charles	Admiralty	Writer (Temporary)	— Sept. 28.
Monds; Moses Arthur	Inland Revenue	Assistant of Excise	— Dec. 31.
*†Moody; Richard Quiller	Registrar General's Office (England).	Index Compiler	1870, May 5.
Moore; Francis John Lucas	Inland Revenue	Assistant of Excise	— Jan. 14.
†Moore; William Henry	Do.	Clerk (Accountant General's Department).	— March 14.
Morford; Henry	Do.	Assistant of Excise	1869, Dec. 21.
Morris; John	Do.	Do.	1870, April 18.
Morris; John Hulse	Do.	Do.	— Feb. 23.
†Mortimer; William	Registrar General's Office (England).	Clerk	1869, Aug. 6.
Mosley; Frederick Charles	Inland Revenue	Assistant of Excise	1870, May 23.
Muir; James Drummond	Customs	Writer (Temporary)	— March 31.
Muir; John	Post Office	Provincial Clerk	1869, Dec. 20.
†Mulley; William Henry	Seamen's Registry Office.	Clerk	1870, March 30.
Mullings; Eugene Thomas Frank.	Inland Revenue	Assistant of Excise	— Feb. 22.
Murchie; George	Post Office	Provincial (Sorting) Clerk	— March 7.
Murray; Richard	Inland Revenue	Assistant of Excise	— March 7.

N.

*Napier (Honble.); William John George.	Diplomatic Service	Attaché	1869, Oct. 4.
Nason; Alfred	Customs	Writer (Temporary)	1870, Feb. 3.
Naylor; James Bell	Post Office	Provincial (Sorting) Clerk	1869, Dec. 6.
†Neale; William Lowry Buchanan.	Consular Service	Student Interpreter (China and Japan).	1870, March 28.
Newell; Sarah Kate	Convict Service	Schoolmistress	1869, Oct. 16.
Newton; Edward	Post Office	Provincial Clerk	— Sept. 14.
*†Nicholls; Joseph Crane	Convict Service	Clerk	— July 1.
†Nind; George Frederick Pitt.	Post Office	Supplementary Clerk (Savings Bank).	— Aug. 26.
Norman; Edward	House of Commons	Clerk (Private Bill Office)	1870, April 4.
Nosworthy; Stewart Henry	Civil Service Commission.	Boy Writer	— March 28.

O.

Oatt; James William	Inland Revenue	Assistant of Excise	1870, May 9.
O'Brien, Jeremiah	Do.	Do.	1869, Sept. 28.
O'Halloran; James	Do.	Do.	1870, Jan. 7.
O'Meara; Joseph	Do.	Do.	— March 31.
Ord; Thomas Roberts	Do.	Do.	— April 22.
Osborne; James Edwin	Do.	Do.	1869, Dec. 6.
†Otter; Robert Melvil Barry	Exchequer and Audit Office.	Clerk	— July 20.

P.

Palmer; John Cecil	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
Parker; Frederick William	Do.	Provincial (Sorting) Clerk	— Nov. 1.
Parker; John	Inland Revenue	Assistant of Excise	1870, April 2.
Parrot; John Hudson	Customs	Writer (Temporary)	1869, Dec. 24.
Parry; Thomas	Inland Revenue	Assistant of Excise	— Aug. 5.
Parsons; Robert Henry	Post Office	Provincial (Sorting) Clerk	— July 2.
Passingham; Robert Townsend.	Admiralty	Writer (Temporary)	1870, Jan. 29.
Paul; John Wesley	Do.	Do.	1869, Aug. 4.
Pearce; Henry James	Inland Revenue	Assistant of Excise	1870, April 21.
†Pearce; Samuel	Registrar General's Office (England).	Index Compiler	1869, Oct. 11.
Pearse; Edward	Inland Revenue	Assistant of Excise	1870, Feb. 22.
Pepper; Edward	Do.	Do.	— March 28.
*Peter; Samuel Hoblyn	Do.	Do.	— March 10.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
Peyton; Richard Francis	Convict Service	Temporary Clerk to Store Accountant.	1869, Nov. 26.
Peyton; William Giffard	Post Office	Clerk (Savings Bank)	— Dec. 17.
Phelan; Bernard	Inland Revenue	Assistant of Excise	1870, April 6.
Piers; Arthur Henry Brymer	Post Office	Supplementary Clerk (Savings Bank).	1869, July 20.
Ping; Albert William	Inland Revenue	Assistant of Excise	— Aug 24.
*Poingdestre; John Edmund	House of Commons	Superintendent of Copying Department.	1870, May 7.
Porter; Albert Paxton	Post Office	Provincial Clerk	1869, Aug. 20.
Porter; William Workman	Customs	Writer (Temporary)	1870, June 1.
†Potts; John	Convict Service	Clerk	— Jan. 11.
Power; Patrick John	Inland Revenue	Assistant of Excise	— Jan. 17.
Price; Walter	Post Office	Provincial (Sorting) Clerk	1869, Nov. 20.
Price; William Edwards	Inland Revenue	Assistant of Excise	— Dec. 6.
†Primrose; Henry William	Treasury	Clerk	— Oct. 13.
Prince; Samuel	Post Office	Provincial (Sorting) Clerk	— Oct. 11.
Pritchard; Henry	Inland Revenue	Assistant of Excise	1870, Feb. 23.
*†Purser; Alfred	Record Office (England).	Clerk	1869, Oct. 16.
Purvis; William	Inland Revenue	Assistant of Excise	1870, April 12.
R.			
Rafferty; James	Inland Revenue	Assistant of Excise	1870, Feb. 21.
Reardon; John	Do.	Do.	1869, Aug. 20.
*†Reay; Robert William	Exchequer and Audit Office.	Clerk	— Sept. 21.
Redford; Edward Pigott William.	Post Office	Clerk (Savings Bank)	— Dec. 17.
Reilly; Thomas	Inland Revenue	Assistant of Excise	— Dec. 30.
Rennick; Henry Frater	Customs	Writer (Temporary)	1870, May 2.
Richards; Charles	Inland Revenue	Assistant of Excise	1869, Nov. 15.
Richards; Fowell Charles Buxton.	Quartermaster-General's Office.	Clerk	— Dec. 23.
Richards; John	Inland Revenue	Assistant of Excise	1870, Feb. 18.
Richardson; Frederick Edward.	Civil Service Commission.	Boy Writer	— March 28.
Riches; Henry Howard	Inland Revenue	Assistant of Excise	— Feb. 23.
Righton; Sidney	Post Office	Provincial (Sorting) Clerk	— April 2.
*Robinson; Charles	Parliamentary Counsel (Office of the).	Temporary Clerk and Shorthand Writer.	1869, July 13.
Robinson; Henry	Admiralty	Writer (Temporary)	— July 23.
Robson; Andrew Allan	Post Office	Provincial (Sorting) Clerk	1870, Jan. 8.
Robson; James	Customs	Writer (Temporary)	1869, Oct. 6.
Roche; William Henry	Inland Revenue	Assistant of Excise	— Dec. 20.
Roe; Henry	Post Office	Provincial Clerk	— Nov. 22.
Roe; Mary Ann	Do.	Do.	1870, Jan. 25.
*Rogers; George Augustus Frederick.	Do.	Supplementary Clerk (Savings Bank).	1869, July 20.
Rolfe; Frederick William	Inland Revenue	Assistant of Excise	1870, April 23.
Rookby; William	Do.	Do.	1869, Oct. 30.
Ross; Hamilton	Probate Court (England).	Clerk	1870, Jan. 15.
Rudolf; Robert de Montjoie	Civil Service Commission.	Boy Writer	— March 28.
Rule; Arthur Edward	Admiralty	Writer (Temporary)	1869, Dec. 6.
Russell; Cecil	Post Office	Clerk (Savings Bank)	— Dec. 17.
Rutherford; William	Inland Revenue	Assistant of Excise	— Dec. 22.
Ryan; Mark Jackson	Do.	Do.	1870, March 11.
Ryan; Martin Francis	Customs	Writer (Temporary)	1869, Oct. 4.
Rylatt; Thomas Hopkins	Inland Revenue	Assistant of Excise	— Sept. 3.
S.			
Sadler; John James	Post Office	Provincial (Sorting) Clerk	1869, Nov. 9.
Sampson; Richard Alfred	Do.	Provincial Clerk	1870, Jan. 31.
Sanderson; Alfred William	Inland Revenue	Assistant of Excise	— April 22.
Sarah; Charles Frederick	Do	Do.	1869, Oct. 22.
Sarginson; William Henry	Post Office	Provincial (Sorting) Clerk	— Nov. 17.
Saward; William	Mint	Foreman of the Die Department.	— Dec. 31.
Sconce; Gideon Colquhoun	Emigration Office	Assistant Emigration Officer	1870, March 1.
*†Sealy; James Edward	National Education Office (Ireland).	Clerk	— May 16.
Service; James	Inland Revenue	Assistant of Excise	1869, Sept. 3.
Shanahan; John	Do.	Do.	1870, Jan. 20.
Sharland; Alfred	Do.	Do.	1869, Dec. 24.
Sharley; Frank	Do.	Do.	1870, March 3.
Shaw; William Candlish	Do.	Do.	1869, Aug. 9.
†Shea; John	Education Office	Junior Assistant Clerk	— Dec. 4.
Shears; William	Post Office	Provincial (Sorting) Clerk	— Aug. 24.
Shelley; Arthur John	Admiralty	Writer (Temporary)	1870, Jan. 31.
†Sheppard; James Frederick	Paymaster-General's Office.	Clerk	1869, Oct. 15.
Sherburn; Henry Arthur	Post Office	Clerk (Savings Bank)	— Dec. 17.
Shiells; Robert	Inland Revenue	Assistant of Excise	1870, April 1.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
Shipston; George	Inland Revenue	Assistant of Excise	1870, March 24.
Short; Noel	Do.	Do.	— Jan. 29.
Shoveller; John Hampden	Registrar - General's Office (England).	Clerk	1869, July 17.
Sidgwick; Alfred Mears	Inland Revenue	Assistant of Excise	1870, Jan. 26.
Simpson; James	Do.	Do.	— Jan. 17.
Simpson; William Wooley	Admiralty	Writer (Temporary)	1869, Sept. 3.
Skelton; Ben.	Inland Revenue	Assistant of Excise	1870, Jan. 19.
Skelton; William	Do.	Do.	1869, Sept. 3.
Skertchley; Sydney Barber Josiah.	Science and Art Department.	Assistant Geologist	— July 19.
†Smart; John Edward	Colonial Office	Writer (Ceylon)	— Aug. 24.
Smith; Alice	Post Office	Provincial Clerk	— July 23.
Smith; George	British Museum	Assistant	1870, March 10.
Smith; Richard William	Inland Revenue	Assistant of Excise	— Feb. 18.
†Smith; Robert Gedge	Education Office	Junior Assistant Clerk	1869, Dec. 6.
Smyth; Thomas	Inland Revenue	Assistant of Excise	1870, March 2.
Somerset; John Henry William.	House of Commons	Supernumerary Clerk	1869, Aug. 10.
Somerset; John Henry William.	Do.	Clerk	1870, Jan. 6.
Soper; Henry John	Inland Revenue	Assistant of Excise	— March 25.
Spence; Samuel	Do.	Do.	— Feb. 5.
Spry; John Powell	Do.	Do.	— Feb. 23.
Stahlschmidt; John Charles Lett.	Admiralty	Writer (Temporary)	— Feb. 25.
Stamper; Thomas	Inland Revenue	Assistant of Excise	— Feb. 22.
Stansfield; James	Post Office	Provincial (Sorting) Clerk	1869, Sept. 28.
Stanwix; Stephen	Inland Revenue	Assistant of Excise	1870, April 2.
Staples; John Fallowdown	Admiralty	Writer (Temporary)	1869, Dec. 7.
Steele; George	Post Office	Provincial (Sorting) Clerk	— Nov. 3.
Steele; William	Inland Revenue	Assistant of Excise	1870, March 31.
†Stephen; Henry St. James	Record Office (England).	Clerk	— Jan. 28.
Stevens; Arthur	Admiralty	Writer (Temporary)	1869, Dec. 17.
Stevens; Jasper	Inland Revenue	Assistant of Excise	1870, May 24.
Stevenson; William Edmund	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
Stewardson; Henry Charlton	Customs	Writer (Temporary)	1870, March 12.
Stewart; James Mowatt	Do.	Do.	1869, July 14.
†Stockham; James Augustus	Education Office	Junior Assistant Clerk	— Sept. 7.
Strange; Vincent William	Paymaster - General's Office.	Temporary Clerk	1870, March 28.
Sullivan; Timothy	Inland Revenue	Assistant of Excise	1869, Oct. 4.
T.			
Tatham; William Henry	Inland Revenue	Assistant of Excise	1870, Jan. 6.
Taylor; Aucher Cornwall	Foreign Office	Clerk (Chief Clerk's Department).	1869, Aug. 18.
Taylor; Robert	Post Office	Provincial Clerk	1870, Jan. 21.
Taylor; Thomas	Inland Revenue	Assistant of Excise	— March 10.
Thomas; Henry Lewis	Do.	Do.	— June 1.
Thompson; James	Customs	Writer (Temporary)	— March 14.
Thornley; Robert William	Post Office	Clerk (Savings Bank)	1869, Dec. 17.
*†Thorp; Charles William	Chief Secretary's Office (Ireland).	Clerk	— Aug. 9.
Thorpe; George William	Customs	Writer (Temporary)	— Sept. 21.
Thurley; James Day	Copyhold, Enclosure, and Tithe Commission.	Assistant Record Keeper	1870, May 14.
†Tobin; Francis James	Post Office	Clerk (Money Order Office)	— April 18.
Todd; Robert Alexander	Inland Revenue	Assistant of Excise	1869, Nov. 26.
Tower; Herbert Chichester	House of Commons	Clerk (Private Bill Office)	1870, March 3.
Towers; Alfred	Patent Office	Writer	— Feb. 4.
Train; William	Inland Revenue	Assistant of Excise	— Jan. 24.
†Trinder; William George	Post Office	Supplementary Clerk (Savings Bank).	— Feb. 23.
Troup; Forbes	Inland Revenue	Assistant of Excise	1869, Dec. 2.
Tudor; John	Metropolitan Police Commissioners' Office.	Writer in Registry of Habitual Criminals.	1870, May 27.
Turnbull; James	Post Office	Provincial (Sorting) Clerk	— March 25.
Turner; Joseph	Inland Revenue	Assistant of Excise	— April 21.
Twyford; (Captain) Anthony William.	Convict Service	Deputy Governor, Brixton Prison.	— March 16.
*†Tytheridge; Walter Robert	Registrar - General's Office (England).	Index Compiler	— March 22.
U.			
†Uhthoff; Edward Cuningham.	Post Office	Supplementary Clerk (Savings Bank).	1869, Aug. 20.
V.			
†Vanderzee; George Yorke	Exchequer and Audit Office.	Clerk	1869, Oct. 25.
Vere; Charles	Adjutant - General's Office.	Supplementary Clerk	— Sept. 10.

Name.	Department and Situation.		Date of Certificate.
	Department.	Situation.	
‡Vernon Harcourt; Leveson Francis.	—	County Surveyor in Ireland	1869, Dec. 21.
Vickers; Thomas Martin	Post Office	Provincial (Sorting) Clerk	1870, May 5.
*Villiers; Francis John	Colonial Office	Supernumerary Copying Clerk.	1869, Dec. 16.
W.			
Walker: James	Inland Revenue	Assistant of Excise	1869, Nov. 29.
Wallace; James	Do.	Do.	1870, Feb. 2.
Wallis; Ellison	Do.	Do.	1869, Aug. 24.
Walsh; John Joseph	Do.	Do.	1870, April 6.
Walsh; Thomas Charles	Do.	Do.	— Jan. 21.
Walsh; William Elphinstone	Metropolitan Police Office.	Supplementary Clerk	— May 13.
Walton; William Thomas	Post Office	Provincial (Sorting) Clerk	— Jan. 14.
†Warburton; Henry Willmott.	Paymaster - General's Office.	Clerk	— May 16.
†Ward; Alfred Rudyerd	Post Office	Supplementary Clerk (Savings Bank).	1869, Aug. 20.
Ward; Thomas	Inland Revenue	Assistant of Excise	— Sept. 3.
Waring; Lucas	Paymaster - General's Office.	Temporary Clerk, Dublin	1870, Feb. 4.
*†Warner; Francis Heveningham.	Inland Revenue	Clerk (Legacy Duty Department).	— March 5.
*Waters; Charles	Treasury	Temporary Clerk	1869, Aug. 20.
Waters; Charles	Do.	Supplementary Audit Clerk	— Dec. 11.
Watson; Charles France	Inland Revenue	Assistant of Excise	1870, Feb. 5.
Watson; Charles Howard	Post Office	Supplementary Clerk (Savings Bank).	1869, July 20.
Watts; Alfred James	Inland Revenue	Assistant of Excise	— Nov. 15.
Webb; William Henry	Post Office	Provincial (Sorting) Clerk	— Dec. 23.
Welch; Thomas	Do.	Provincial Clerk	— Nov. 3.
†Wells; Henry Spencer	Do.	Supplementary Clerk (Savings Bank).	— Aug. 20.
*†West; Benjamin	Paymaster - General's Office.	Clerk	— Oct. 20.
†Westacott; Samuel	Registrar - General's Office (England).	Do.	1870, April 12.
Wheeler; Montague	Post Office	Boy Clerk	— May 17.
Wheldon; Elizabeth	Do.	Provincial Clerk	1869, Aug. 2.
White; Frederick	Civil Service Commission.	Boy Writer	1870, March 28.
White; William Henry	Admiralty	Draughtsman (Department of the Chief Constructor of the Navy).	1869, Sept. 3.
Whitehead; Thomas	Inland Revenue	Assistant of Excise	1870, Feb. 21.
Wicks; William	Do.	Do.	— Feb. 25.
Wiele; Ernest Albrecht	Admiralty	Writer (Temporary)	— March 16.
Wilding; Longworth	Post Office	Provincial Clerk	1869, Aug. 24.
†Williams; George	Paymaster - General's Office.	Clerk	— Sept. 3.
Williams; George Peter	Inland Revenue	Assistant of Excise	1870, Jan. 12.
Williams; John	Convict Service	Schoolmaster	1869, Sept. 10.
Williams; William Frederick	Inland Revenue	Assistant of Excise	1870, Feb. 7.
Willis; Arthur Clevedon	Metropolitan Police Commissioner's Office.	Supplementary Clerk	— May 25.
*†Wills; William Henry	Inland Revenue	Clerk (Glasgow)	— March 9.
†Wilson; Guy Douglas Arthur Fleetwood.	Paymaster - General's Office.	Clerk	— May 12.
Wilson; James	Lunacy Board (Scotland).	Do.	1869, Nov. 15.
Wissenden; William	Admiralty	Writer (Temporary)	— Oct. 27.
Wood; Henry	Inland Revenue	Assistant of Excise	1870, Feb. 11.
*Wood; Henry Trueman Wright.	Patent Office	Clerk	— Jan. 28.
Woodhead; James	Inland Revenue	Assistant of Excise	— April 11.
*†Woods; William Aron	Convict Service	Clerk	1869, Sept. 10.
†Woolcock; John Treseder	Registrar - General's Office (England).	Do.	1870, Jan. 26.
†Wootton; John Joseph	Education Office	Junior Assistant Clerk	1869, Dec. 3.
Wright; Alfred Cecil	Post Office	Clerk (Savings Bank)	— Dec. 21.
Wright; Thomas	Inland Revenue	Assistant of Excise	— Oct. 5.
Wright; Thomas	Admiralty	Second Class Computer (Nautical Almanack Office).	— Dec. 30.
‡Wyatt; Joseph	Probate Court	Writing Clerk	1870, Feb. 18.
Y.			
*†Young; William Hingston	Consular Service	Student Interpreter (China)	1870, May 26.

LIST of ALL PERSONS who have been REPORTED QUALIFIED TO BE ADMITTED TO PROBATION under the Order in Council of 4th June 1870 for CLERKSHIPS and similar APPOINTMENTS between 4th and 30th June 1870.

* Candidates whose names are preceded by this sign (*) obtained honorary additions to their Reports of Qualification, either for proficiency in extra subjects chosen by themselves, or for marked proficiency in prescribed subjects.

† Candidates whose names are preceded by this sign (†) were successful in *limited competitions*.

Name.	Department and Situation.		Date of Report.
	Department.	Situation.	
Atwell; Jacob Mackey	Inland Revenue	Assistant of Excise	1870, June 14.
Beaton; William Leslie	Do.	Do.	— ,, 21.
Brien; John Francis	Do.	Do.	— ,, 4.
†Brown; George	Education Office	Junior Assistant Clerk	— ,, 13.
*†Burke; Robert	Registry of Deeds (Ireland).	Clerk	— ,, 21.
†Burridge; Tom	Education Office	Junior Assistant Clerk	— ,, 10.
Chambers; Robert	Post Office	Provincial Clerk	— ,, 30.
Considine; Michael	Inland Revenue	Assistant of Excise	— ,, 11.
Cooper; Adam	Customs	Writer (Temporary)	— ,, 30.
Davey; William Henry	Inland Revenue	Assistant of Excise	— ,, 24.
Davis; Thomas	Do.	Do.	— ,, 25.
Dawson; William Powell	Convict Service	Compounder	— ,, 4.
†Dixon; Sydenham Lynes	Inland Revenue	Clerk (Accountant-General's Department).	— ,, 11.
†Ellenor; Thomas Ralph	Education Office	Junior Assistant Clerk	— ,, 13.
Fain; William	Metropolitan Police Commissioners' Office.	Writer in Registry of Habitual Criminals.	— ,, 20.
Fawsitt; William	Inland Revenue	Assistant of Excise	— ,, 27.
†Forder; Frederick	Customs	Clerk	— ,, 16.
Fortescue; George Knottesford.	British Museum	Assistant	— ,, 4.
Fraser; Alfred Simon	Treasury	Supplementary Audit Clerk	— ,, 11.
Gerahty; Edward Francis	Church Temporalities Commission (Ireland).	Junior Clerk	— ,, 20.
Gilbert; Benjamin	Post Office	Provincial Clerk	— ,, 21.
Ginn; George	Inland Revenue	Assistant of Excise	— ,, 25.
Goodall; Charles Richard	Do.	Do.	— ,, 28.
Griffiths; (Capt.) Arthur George Frederick.	Convict Service	Deputy Governor	— ,, 6.
Griffiths; Frederick Hewitt	Civil Service Commission.	Boy Writer	— ,, 16.
Hart; John	Inland Revenue	Assistant of Excise	— ,, 24.
†Horan; Thomas	Registry of Deeds (Ireland).	Clerk	— ,, 17.
*Jenner; Henry	British Museum	Assistant	— ,, 23.
Lambert; Frederick	Customs	Writer (Temporary)	— ,, 4.
Lewis; Richard	Church Temporalities Commission (Ireland).	Junior Clerk	— ,, 20.
†Lines; James Edward	Convict Service	Schoolmaster	— ,, 6.
Lloyd; Frederick James	Inland Revenue	Assistant of Excise	— ,, 24.
MacGregor; James Pendarves	Post Office	Clerk (Secretary's Office)	— ,, 21.
Mail; James	Inland Revenue	Assistant of Excise	— ,, 21.
†Martyn; Frederick George	Education Office	Junior Assistant Clerk	— ,, 11.
Millington; William Alexander.	Post Office	Boy Clerk	— ,, 4.
Morgan; John	Inland Revenue	Assistant of Excise	— ,, 24.
Osmond; James	Do.	Do.	— ,, 24.
Page; Henry William	Post Office	Boy Clerk	— ,, 4.
Potter; Humphrey Eustace	Do.	Boy Clerk (Savings Bank)	— ,, 20.
†Richardson; George Alfred	Education Office	Junior Assistant Clerk	— ,, 9.
Roper; Robert	Inland Revenue	Assistant of Excise	— ,, 21.
Rose; Henry	Post Office	Provincial Clerk	— ,, 11.
Ruthven; Mervyn Henry	Chief Secretary's Office.	Writer (Temporary)	— ,, 7.
Ryder; Lionel George Dudley	British Museum	Junior Assistant	— ,, 23.
Seton; George Mearns	Inland Revenue	Assistant of Excise	— ,, 23.
Sheahan; John	Do.	Do.	— ,, 20
Sheppard; William Harry Cope.	Church Temporalities Commission (Ireland).	Junior Clerk	— ,, 20.
†Steede; John	National Education Office (Ireland).	Inspector of Schools	— ,, 9.
†Trathan; Edward Edgecombe.	Education Office	Junior Assistant Clerk	— ,, 14.
Ward; William	Post Office	Provincial Clerk	— ,, 13.
Wild; Alfred Parker	Do.	Boy Clerk (Savings Bank)	— ,, 23.
*†Willcock; Alfred	Paymaster-General's Office.	Clerk	— ,, 16.
With; George Henry	Inland Revenue	Assistant of Excise	— ,, 21.

HONORARY CERTIFICATES.

List of Candidates who, between 1st July 1869 and 30th June 1870, obtained Honorary Additions to their Certificates, either for Extra Subjects voluntarily chosen or for marked proficiency in prescribed Subjects.

† Candidates whose names are preceded by this sign (†) obtained appointments as the result of limited competition.

‡ Candidates whose names are preceded by this sign (‡) obtained appointments as the result of open competition.

Name of Successful Candidate.	Position in the Service.		Subjects for which Honorary Additions to the Certificates were made.	Extent of Knowledge displayed.
	Department.	Situation.		
†Arnold; C. H.	Convict Service.	Clerk	Copying into Forms and Registers.	Very creditable.
			Indexing	Creditable.
†Ball; H. W.	Registry of Deeds (Ireland).	Do.	Algebra (including quadratic equations).	Fair.
			Euclid (Books I. to IV. and VI.)	Fair.
†Barrett; A. R.	Exchequer and Audit Office.	Do.	Translation from English into Latin.	Fair.
			Translation from Greek into English.	Fair.
			Algebra (including quadratic equations).	Fair.
Boland; W.	Inland Revenue.	Assistant of Excise.	Geography	Fair.
†Burke; R.	Registry of Deeds (Ireland).	Clerk	Précis	Fair.
†Crawford; J. D.	Consular Service.	Student Interpreter (China and Japan).	Algebra (including quadratic equations.)	Fair.
			Plane Trigonometry (including the solution of triangles).	Fair.
			English language	Creditable.
†Dale; W. F.	Exchequer and Audit Office.	Clerk	French (translation from and into English, and conversation).	Fair.
†Denniford; R.	Seamen's Registry.	Do.	English composition	Fair.
Doggett; H.	Inland Revenue.	Assistant of Excise.	English composition.	Fair.
			Indexing	Fair.
Engelbach; A.H.H.	Colonial Office.	Clerk (Accounts Branch).	Translation from French into English.	Fair.
			Geography	Fair.
†Fenton; T. C.	Convict Service.	Clerk	Arithmetic (including vulgar and decimal fractions).	Fair.
			Digesting and Tabulating Accounts and Returns.	Creditable.
†Glyn; C. C.	Exchequer and Audit Office.	Do.	Translation from Greek into English.	Fair.
Godby; H. A.	Post Office.	Clerk (Money Order Office).	Geography	Fair.
†Graves; A. P.	Home Office	Do.	Translation from Greek into English.	Very creditable.
			Translation from English into Greek.	Fair.
Hertslet; R. H.	Foreign Office.	Temporary Clerk (Librarian's Department).	Translation from Latin into English.	Fair.
			Translation from English into Latin.	Fair.
Hoctor; W. F.	Inland Revenue.	Assistant of Excise.	Translation from Latin into English.	Fair.
			Higher Arithmetic	Fair.
			English History	Fair.
			Geography	Fair.

Name of Successful Candidate.	Position in the Service.		Subjects for which Honorary Additions to the Certificates were made.	Extent of Knowledge displayed.
	Department.	Situation.		
†Jeayes; I. H. -	Convict Service.	Clerk - -	Translation from Latin into English.	Creditable.
			Translation from English into Latin.	Fair.
			Translation from Greek into English.	Fair.
			English composition -	Creditable.
			Digesting and Tabulating Accounts and Returns.	Creditable.
			Indexing - - -	Creditable.
Jenner; H. -	British Museum.	Assistant - -	Algebra (including quadratic equations).	Fair.
†Jeune; J. F. -	Parliament Office.	Do. - -	Translation from Latin into English.	Creditable.
			Translation from English into Latin.	Fair.
			Précis - - -	Creditable.
			Geography - -	Creditable.
			Euclid (Books I. to IV.)	Fair.
Johnston; J. O. -	Post Office -	Supplementary Clerk.	Translation from Latin into English.	Fair.
†Kearns; H. -	Paymaster-General's Office.	Clerk - -	English history - -	Fair.
			Algebra (including quadratic equations).	Fair.
†Lane; E. B. -	Registrar-Gen. Office (England).	Index Compiler	English Composition -	Creditable.
†Leech; M. T. -	Registrar-Gen. Office (Ireland).	Clerk - -	Translation from French into English.	Creditable.
Lee-Hamilton; E. J.	Diplomatic Service.	Attaché - -	Translation from Italian into English.	Very creditable.
			Translation from English into Italian.	Very creditable.
			Italian conversation -	Very creditable.
			Translation from German into English.	Very creditable.
			Translation from English into German.	Very creditable.
			German conversation	Very creditable.
			Translation from English into French.	Creditable.
			French conversation -	Creditable.
†Lemass; P. -	National Education Office.	Clerk - -	Most of the prescribed subjects.	Marked proficiency.
†McClatchie; T. R. H.	Consular Service.	Student Interpreter, China.	Translation from English into French.	Fair.
			Translation from English into Latin.	Fair.
†Mace; T. J. -	Paymaster-Gen. Office.	Clerk - -	English history - -	Fair.
†Martin; W. M. -	Exchequer and Audit Office.	Do. - -	Translation from Greek into English.	Fair.
			Algebra (including the Binomial Theorem).	Creditable.
†Moody; R. Q. -	Registrar-Gen. Office (England).	Index Compiler	Arithmetic (vulgar and decimal fractions).	Very creditable.
			Précis - - -	Fair.
Napier, Hon.; W. J. G.	Diplomatic Service.	Attaché - -	French conversation -	Fair.
†Nicholls; J. C. -	Convict Service.	Clerk - -	Indexing - - -	Fair.
Peter; S. H. -	Inland Revenue.	Assistant of Excise.	Geography - -	Fair.
Poingdestre; J. E.	House of Commons.	Superintendent of Copying Office.	Translation from French into English.	Creditable.
			Translation from English into French and French conversation.	Fair.

Name of Successful Candidate.	Position in the Service.		Subjects for which Honorary Additions to the Certificates were made.	Extent of Knowledge displayed.
	Department.	Situation.		
†Purser; A.	Record Office (England).	Clerk	Shorthand Writer Translation from German into English. Translation from Italian into English.	Fair. Very creditable. Fair.
†Reay; Robt. Wm.	Exchequer and Audit Office.	Do.	Euclid (Books IV., VI., and XI.) Algebra (including quadratic equations). Plane Trigonometry English History Translation from German into English. Translation from English into German.	Fair. Fair. Fair. Fair. Fair. Fair.
Robinson; Chas.	Office of the Parliamentary Counsel.	Temporary Clerk and Shorthand Writer.	Translation from French into English.	Fair.
Rogers; G. A. F.	Post Office	Supplementary Clerk (Savings Bank).	Translation from Latin into English.	Fair.
†Sealy; J. E.	National Education Office (Ireland).	Clerk	Plane Trigonometry Logic.	Fair. Fair.
†Thorp; C. W.	Chief Secretary's Office (Ireland).	Do.	Alegebra (including quadratic equations).	Creditable.
†Tytheridge; W. R.	Registrar-Gen. Office (England).	Index Compiler	English composition Précis	Fair. Fair.
Villiers; F. J.	Colonial Office.	Supernumerary Copying Clerk.	Translation from Latin into English. Translation from Greek into English.	Fair. Fair.
†Warner; F. H.	Inland Revenue.	Clerk in Legacy Duty Department.	Book-keeping by double entry.	Fair.
Waters; C.	Treasury	Temporary Clerk	English history	Fair.
Watson; C. H.	Post Office	Supplementary Clerk in Savings Bank.	Précis Translation from French into English. Translation from English into French.	Creditable. Creditable. Fair.
†West; B.	Paymaster-General's Office.	Clerk	Algebra (including quadratic equations.) English literature	Fair. Fair.
†Willcock; A.	Do.	Do.	Euclid (Books I. to IV.) Algebra (including quadratic equations.) Mixed Mathematics English History English Literature Translation from Latin into English.	Fair. Creditable. Fair elementary knowledge. Fair. Fair. Fair.
†Wills; W. H.	Inland Revenue.	Clerk, Glasgow	Translation from French into English. Translation from English into French. French conversation	Fair. Fair. Fair.
Wood; H. T. W.	Patent Office.	Clerk	Greek, translation from into English. Translation from Latin into English. Translation from English into Latin. Algebra (including quadratic equations).	Fair. Creditable. Creditable. Fair.
†Woods; W. A.	Convict Service.	Do.	Geography Arithmetic (including vulgar and decimal fractions).	Fair. Fair.
†Young; W. H.	Consular Service.	Student Interpreter (China).	Translation from English into Latin. Translation from Greek into English. Translation from English into Greek.	Creditable. Creditable. Fair.

Appendix II.

CORRESPONDENCE.

[For the Correspondence referring to the Military Entrance Examinations, *see* Appendix IV., p. 122, and for that referring to the India Civil Service, *see* Appendix V., p. 242.]

CORRESPONDENCE.

[For the Correspondence referring to the Military Entrance Examinations, *see* Appendix IV., p. 122, and for that referring to the India Civil Service, *see* Appendix V., p. 242.]

COLONIAL OFFICE.

COLONIAL OFFICE.

Sir F. R. Sandford to the Secretary, Civil Service Commission.

SIR, Downing Street, 10th July 1869.

Examination of Straits Settlements cadets.

I AM directed by Earl Granville to forward for the information of the Civil Service Commissioners the enclosed copies of a scheme which his Lordship has directed to be prepared with the view of showing certain alterations which he has recently had occasion to make in the arrangements for the selection, examination, pay, and employment of such cadets as may be required for recruiting the Civil Service of the Straits Settlements.

I am, &c.

ENCLOSURE.

STRAITS SETTLEMENTS CADETSHIPS.

WITH a view to supply the Civil Service in the Straits Settlements, a certain number of cadetships have been established, the holders of which are required to devote themselves for a certain time after their arrival in the colony to learning either Malay or Chinese.

1st. The cadets are appointed after a competitive examination by the Civil Service Commissioners, from amongst candidates nominated for this purpose by the Secretary of State.

2nd. Each candidate shall be between the ages of 20 and 23.

3rd. The heads of examination are as follow :—

A. *Obligatory.*

1st. Exercises designed to test handwriting and orthography.
2nd. Arithmetic, including vulgar and decimal fractions.
3rd. Latin and one of the following languages :—Greek, French, German, Italian.
4th. English composition, including précis writing.

B. *Optional.*

5th. Pure and mixed mathematics.
6th. Ancient or modern history, and geography.
7th. The elements of constitutional and international law, and political economy.
8th. Geology, civil engineering, and surveying.

Every candidate must show a competent knowledge of the first four subjects, and may select any two of the optional subjects.

4th. Each cadet will receive a salary of 200*l.* per annum ; half salary to commence from the day of leaving England, and full salary from the date of his arrival in the Settlements. The cost of his passage to the colony will be paid subject to the repayment hereafter mentioned (Secs. 8, 9).

5th. On the arrival of the cadet in the Straits Settlements he will apply himself specially to learning either Malay or Chinese, as the local government may direct.

6th. While thus studying he will be under the control and supervision of the Governor of the colony, who will frame regulations for his hours of study and general government. Quarters, books, and teachers will be provided for him at the public expense, and he will be required to attend at the public offices two hours daily, in order to give him an opportunity of learning the details of public business, without interfering with his reading.

7th. As soon as he is declared by a Board of Examiners to have acquired a competent knowledge of Malay or Chinese, he will be temporarily employed in such of the departments as may require his services at a salary of 300*l.* per annum, without other allowances, and will be considered eligible by the Secretary of State for appointment, as vacancies may occur, to offices in the Civil Service of the Straits Settlements.

COLONIAL OFFICE.

Examination of Straits Settlements cadets.

8th. The progress of the cadet will be tested by half yearly examinations, and he will be liable to be dismissed without further pay if he does not pass his final examination (see Section 7), within three years after his arrival in the colony, or if, at any time his progress or conduct shall be considered by the Governor and Executive Council to be so unsatisfactory as to render such a course desirable. The Governor and Council will decide, having regard to the ground of dismissal, whether the cadet shall be sent home at the public expense, or shall be left to find his own way home, or shall be, in addition, called upon to repay the cost of his passage out.

9th. A bond must be entered into by the cadet and his friends at home with the Agents General for Crown Colonies to secure the repayment of the cost of the passage out, in the event of his dismissal and of its being decided by the Governor and Executive Council that such repayment shall be enforced, and also in the event of the cadet within four years from the date of his arrival in the Straits Settlements either quitting the colony without leave or relinquishing his appointment (except for ill health), together with a further sum of 50*l.* for each year to repay the colony the cost of his teaching up to his leaving.

The Secretary, Civil Service Commission, to the Under Secretary of State for the Colonies.

SIR, 23rd July 1869.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 10th instant, with enclosures, relative to the appointment of cadets in the Straits Settlements.

And in reply I am to request you that will state to Earl Granville that the Commissioners will regulate the examinations of candidates for these situations in accordance with the rules set forth in the Schedule transmitted with your letter; assuming that under the 3rd head translation from the several languages is alone intended to be obligatory, but that with a view to competition the examination should include exercises in translation into those languages, and, as regards the modern tongues, some test of colloquial proficiency.

I have, &c.

Sir F. R. Sandford, to the Secretary, Civil Service Commission.

Examination of Hong Kong cadets.

SIR, Downing Street, 24th July 1869.

I AM directed by Earl Granville to acquaint you for the information of the Civil Service Commissioners, that his Lordship has recently had occasion to revise the regulations in force with regard to Hong Kong cadetships, and I am to transmit to you copies of the amended regulations as finally approved by his Lordship; which will show the Commissioners the alterations which have been made in the arrangements for the selection, examination, pay, and employment of such cadets as may hereafter be required for recruiting the Civil Service of Hong Kong.

I am, &c.

ENCLOSURE.

HONG KONG CADETSHIPS.

WITH a view to supply the Civil Service in Hong Kong, cadetships have been established, the holders of which are required to devote themselves for a certain time after their arrival in the colony to learning Chinese.

1st. The cadets are appointed after a competitive examination by the Civil Service Commissioners, from amongst candidates nominated for this purpose by the Secretary of State.

COLONIAL OFFICE.

Examination of Hong Kong cadets.

2nd. Each candidate shall be between the ages of 20 and 23.
3rd. The heads of examination are as follows:—

A. *Obligatory.*

1st. Exercise designed to test handwriting and orthography.
2nd. Arithmetic including vulgar and decimal fractions.
3rd. Latin, and one of the following languages:—Greek, French, German, Italian.
4th. English composition, including précis writing.

B. *Optional.*

5th. Pure and mixed mathematics.
6th. Ancient or modern history and geography.
7th. The elements of constitutional and international law, and political economy
8th. Geology, civil engineering, and surveying.

Every candidate must show a competent knowledge of the first four subjects, and may select any two of the optional subjects.

4th. Each cadet will receive a salary of 200*l.* per annum, half salary to commence from the day of leaving England, and full salary from the date of his arrival in the colony. The cost of his passage to the colony will be paid, subject to the repayment hereafter mentioned (Sects. 8, 9).

5th. On the arrival of the cadet in Hong Kong he will apply himself specially to learning Chinese.

6th. While thus studying, he will be under the control and supervision of the Governor of the Colony, who will frame regulations for his hours of study and general government. Quarters, books and teachers will be provided for him at the public expense, and he will be required to attend at the public offices two hours daily, in order to give him an opportunity of learning the details of public business, without interfering with his reading.

7th. As soon as he is declared by a board of examiners to have acquired a competent knowledge of Chinese, he will be appointed a Government interpreter, and will be temporarily employed in such of the departments as may require his services, at a salary of 400*l.* per annum, without other allowances. After two years approved service as interpreter, the salary will be increased to 500*l.*, and after three years service he will be considered eligible by the Secretary of State for promotion to the higher offices in the Civil Service of Hong Kong.

8th. The progress of the cadet will be tested by half yearly examinations and he will be liable to be dismissed without further pay if he does not pass his final examination (see Sect. 7) within three years after his arrival in the colony, or if, at any time his progress or conduct shall be considered by the Governor and Executive Council to be so unsatisfactory as to render such a course desirable. The Governor and Council will decide, having regard to the ground of dismissal, whether the cadet shall be sent home at the public expense, or shall be left to find his own way home, or shall be, in addition, called upon to repay the cost of his passage out.

9th. A bond must be entered into by the cadet and his friends at home with the Agents General for Crown Colonies to secure the repayment of the cost of the passage out, in the event of his dismissal and of its being decided by the Governor and Executive Council that such repayment shall be enforced—and also in the event of the cadet within four years from the date of his arrival in Hong Kong, either quitting the colony without leave or relinquishing his appointment (except for ill health), together with a further sum of 50*l.* for each year to repay the colony the cost of his teaching up to his leaving.

Colonial Office, 2nd June 1869.

The Secretary, Civil Service Commission, to the Under Secretary of State, Colonial Office.

SIR, 28th July 1869.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 24th instant, with enclosures, relative to the appointment of Hong Kong cadets.

And, in reply, I am to request that you will state to Earl Granville that the Commissioners will regulate the examination of candidates for these situations in accordance with the rules set forth in the schedule transmitted with your letter; assuming that under the third head

translation from the several languages is alone intended to be obligatory, but that with a view to competition, the examination should include exercises in translation into those languages, and as regards the modern tongues some test of colloquial proficiency.

COLONIAL OFFICE.

I have, &c.

Sir F. R. Sandford, to the Secretary, Civil Service Commission.

Examination of Ceylon writers.

SIR, Downing Street, 22nd December 1869.

WITH reference to previous correspondence, I am directed by Earl Granville to transmit to you, for the information of the Civil Service Commissioners, copies of a scheme which has been drawn up by his Lordship's direction, showing the arrangements which will be observed from the 1st of January next with regard to the selection, examination, pay, and employment of the writers who may be required for recruiting the civil service of Ceylon.

I am, &c.

ENCLOSURE.

CEYLON WRITERSHIPS.

With a view to supply the Civil Service in Ceylon, a certain number of writerships have been established, the holders of which are required to devote themselves for a specified time after their arrival in the colony to learning the native languages.

1. The writers are selected, after a competitive examination by the Civil Service Commissioners, from amongst candidates nominated by the Secretary of State and the Governor of Ceylon.

This examination is held simultaneously in London and Ceylon.

2. Each candidate must be between the ages of 20 and 23.

3. The heads of examination are as follows:—

A. *Obligatory.*

1st. Exercises designed to test handwriting and orthography.
2nd. Arithmetic, including vulgar and decimal fractions.
3rd. Latin and one of the following languages:—Greek, French, German, Italian.
4th. English composition, including précis writing.

B. *Optional.*

5th. Pure and mixed mathematics.
6th. Ancient or modern history and geography.
7th. The elements of constitutional and international law, and political economy.
8th. Geology, civil engineering, and surveying.

Every candidate must show a competent knowledge of the first four subjects, and may select any two of the optional subjects.

4. The selected candidates are not appointed at once, but have to wait till a vacancy occurs. While thus waiting, they may employ the interval either in attending at the Colonial Office, to learn the details of public business, or in prosecuting their studies at the bar or elsewhere. In the latter case they will occupy their time at their own charge, but must submit the proposed plan of their employment for the approval of the Secretary of State. In the former, they will receive an allowance at the rate of 100*l.* a year from colonial funds. Residents in Ceylon will be attached to the Colonial Secretary's office there, and will receive a similar allowance until they are placed on the staff of writers.

5. The salary of a writer commences at 200*l.* a year. A free passage is granted and half salary allowed from the date of embarkation. A bond must be entered into by each writer and two approved sureties with the Agents General for Crown Colonies to secure that, in case of his dismissal, or in case he shall, within three years from the date of his arrival at Ceylon, either quit the colony without leave or relinquish his appointment, he shall, if required by the Governor, repay to the colony the cost of his passage out.

The following are at present the rules respecting the employment of writers. They are, of course, alterable from time to time by the Government:—

6. With a view to facilitate the study of the native languages, all writers will, from the date of their being placed on the permanent staff, receive a pundit allowance of 3*l.* a month during 18 months. Such allowance will be drawn by the writer only on his certificate that the teacher has been actually and bonâ fide employed. During these 18 months of study, writers will be attached to one of the public offices at Colombo,

COLONIAL OFFICE.

Examination of Ceylon writers.

which they will be required to attend for two hours daily, a period sufficient to give them an opportunity of learning the details of public business without interfering with their reading. To ensure a better class of instruction than is now ordinarily attainable by writers, the pundit allowance will be payable only to masters holding certificates from the Board of Examiners of their competency to act in that capacity.

7. During these 18 months writers will be expected to present themselves monthly for examination in the native languages, before some member of the Board of Examiners deputed for that purpose, who will report on their progress to Government. Such member will have a native pundit associated with him if it should be found advisable.

8. An examination will be held quarterly by a Board of Examiners in the subjects hereafter specified, which examination will be conducted on a system of fixed marks, and, so far as possible, by printed papers. The Board will consist of a member of the Executive Council, who will be ex-officio president, the Assistant Colonial Secretary, the Assistant Auditor-General, the Deputy Queen's Advocate, and the Singhalese and Malabar Colonial chaplains, assisted by two pundits, one for each language, and by such other person as the Governor may direct.

9. Every writer will be at liberty to appear before this Board at the examination, which occurs not later than 18 months from the date of his being attached to one of the public offices. If he pass the examination, and produce to Government a certificate from the Board of Examiners to that effect, the period devoted to study shall count as an equal period of active service, and his rank in the service and claim to pension be guided thereby. If he fail to pass, or decline to present himself, his claim to count his service shall be deferred until he does pass. His full time of attendance at the office will also be regularly enforced thenceforward.

10. No writer will be appointed to any office on the Civil Establishment until he produces to Government the certificate aforesaid.

11. On passing the examination, or after 18 months, if they have not passed, writers may be detached to the provincial cutcherries, or otherwise disposed of according to the requirements of the public service.

12. The examinations referred to in the 8th section will be in the following subjects :—

1st. Précis writing, and conduct of official business.

2nd. The system of accounts employed in Government offices.

3rd. Government regulations and minutes in force in the colony ; such ordinances as are likely to be specially required by officers in the third and fourth classes of the service, viz., those relating to police courts and courts of requests and fiscal duties ; also the Customs' Acts, and those regulating tolls, stamps, and licences.

4th. The law of evidence.

5th. Native languages.

Reading and writing in one language, together with a thorough and detailed examination in its grammar, translation from English into the same language, and vice versâ. The proficiency of the candidate in conversation will be tested by vivâ voce examination.

13. The Board of Examiners shall give on the first July of each year notice of the books and documents they intend to use during the ensuing year.

14. On passing this examination, a writer's pay will be increased to 300*l.*

15. Any writer who is of Singhalese, Tamil, or Eurasian parentage, or who has been exclusively educated and brought up in Ceylon, shall be required to pass the foregoing examination in whichever of the native languages has not been spoken by, or familiar to him as a child. His knowledge of the language familiar to him will be tested by conversation only.

16. If a writer should fail to pass, he must continue to present himself monthly before the Examiners appointed by the Government, and at least once in six months before the assembled Board. If he cannot pass within three years from his being attached to one of the public offices, his pay will be withdrawn, and the Secretary of State will be recommended to cancel his appointment.

17. Gentlemen, not writers, who have been, or may be appointed to act in any office in the third and fourth classes, will be required to pass the examinations specified in Clause 12, before being confirmed in their offices, if such offices are of the value of 300*l.* or upwards.

An exception to this rule may be made in favour of the Assistant Auditor-General ; but in no case will an officer be promoted from that post unless he have passed the examination.

18. To rise from the third to the second class of the Junior Branch of the Civil Service, all officers will be required to pass a further examination in the following subjects :—

1st. Native languages.

(*a.*) An examination in the language previously taken up by them, of the same scope and character as the former one.

(*b.*) A similar examination in the other language, omitting writing in the native character.

2nd. Government regulations and minutes: the ordinances in force in the Colony.

3rd. Forms of courts and judicial procedure.

4th. An epitome of Roman Dutch law, digest of Kandian customs and mercantile law.

Their progress and attainments in the other subjects of the former examinations will also be liable to be inquired into.

Colonial Office, January 1, 1870.

COLONIAL OFFICE.

Examination of Ceylon writers.

The Secretary, Civil Service Commission, to the Under Secretary of State, Colonial Office.

SIR, 30th December 1869.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 22nd instant, transmitting copies of a scheme which has been drawn up by Earl Granville's direction, showing the arrangements which will be observed from 1st January next with regard to the selection, examination, pay, and employment of the writers who may be required for recruiting the Civil Service of Ceylon.

I have, &c.

COUNTY SURVEYORS (IRELAND).

COUNTY SURVEYORS (IRELAND).

The Under Secretary for Ireland, to the Secretary, Civil Service Commission.

SIR, Dublin Castle, 16th September 1869.

Open competition (under 25 & 26 Vict. c. 106.)

I AM directed by the Lord Lieutenant to request that you will call the attention of the Civil Service Commissioners to the County Surveyors' Act of 1862 (25 & 26 Vict. c. 106), which has altered the law relating to the appointment of county surveyors in Ireland.

At the time of the passing of this Act there was in existence a list of persons who had been certified as qualified for the appointment under the provisions of an older act; and the Act of 1862 provided that while appointments might continue to be made from this list, all subsequent appointments should be made after examinations to be held in Dublin by the Civil Service Commissioners.

The list referred to is now exhausted, and the time has accordingly come for carrying into effect the new mode of appointment prescribed by the Act of 1862.

The Act allows his Excellency to select for each vacancy any one of the persons certified to him by the Civil Service Commissioners, and his Excellency would wish to exercise this choice by appointing on each occasion those persons whom the Commissioners shall report to him to be the best qualified.

The post of county surveyor differs from most others for which the selection is made by competitive examination, inasmuch as a county surveyor does not enter on his duties in a subordinate capacity, but has from the first the whole responsibility of the works of his county. On this account his Excellency thinks it undesirable that candidates should be deemed eligible who are not at least 26 years of age; and I am accordingly to suggest that 26 and 40 be the limits of age. It is also essential that the Commissioners should be satisfied as to the character of candidates and their health.

Each candidate should be required also to show that he has been engaged in the practice of his profession on adequate works for a sufficient time; or has had in some other way satisfactory opportunities of becoming acquainted with the practice of his profession in some one of the branches lettered below A, B, C, and D.

COUNTY SURVEYORS (IRELAND).

Open competition (under 25 & 26 Vict. c. 106.)

The following is the programme of examination which I am desired to suggest :—

Number of Marks.	PART I.	Estimated Duration of Examination.
100	Mathematics, including geometry, trigonometry, algebra, differential and integral calculus, and geometrical optics - - - - -	6 hours.
100	Mechanical philosophy, including statics and dynamics, hydrostatics, and hydraulics, pneumatics, and heat regarded as a source of power - -	6 „
100	Experimental science, including inorganic chemistry, heat, electricity, and magnetism - - -	6 „
40	Geology and mineralogy - - - -	3 „
340		3½ days.

PART II.

100	Strength and other properties of materials, and the calculation of strains - - - -	6 hours.
140A	Railway and canal engineering - - -	6 „
140B	Marine engineering, including harbour, dock, sea, and reclamation works - - - -	6 „
140C	Hydraulic engineering, including water supply, sewage, and irrigation - - - -	6 „
140D	County works, including architecture, roads, drainage, and river works - - - -	6 „
	N.B.—Each of the groups lettered A, B, C, and D to include designs, estimates, specifications, and the mechanical contrivances connected with it.	

660	marks in Part II.	Part II. occupies	5 days.
340	„ Part I.	Part I. „	3½ „
1,000	total marks.	Whole examination occupies	8½ days.

As it is estimated that the examination will extend over not fewer than eight days, it appears desirable that the two parts into which it is divided should be separated from one another by about a fortnight, so that the candidates may not be worn out by the length of the examination upon the last days. I am also desired to suggest that no minimum of marks be required in any subject, in order that a deserving candidate may not be excluded because he may break down in some out of so many subjects ; and, on the other hand, that all superficial answering be rejected by cancelling any marks which do not come up to a certain amount, to be fixed by the Commissioners for each paper.

It is also very desirable that examinations of this class should recur at stated intervals, and accordingly I am directed by his Excellency to suggest that the examination for County Surveyorships be held annually at such time of year as may least inconvenience candidates engaged in the practice of their profession. June would probably be a good month, and as the nature of the service is such that it does not admit of delay in the filling up of vacancies, it is his Excellency's wish that the names of such a number of the foremost candidates be returned to him after each annual examination as may provide him with a list of two supernumeraries in addition to supplying whatever vacancies may

County Surveyor (Ireland)

Open competition (under 25 & 26 Vic. c. 106.)

at the time exist. It is his intention to offer to these gentlemen appointments to the two vacancies which shall next afterwards occur.

But before these annual examinations can be set on foot, it is necessary to make speedier provision for two vacancies which at present exist, and to provide a supernumerary to fill up any vacancy which may occur between the date of the first examination and the annual examination in June. I am accordingly to propose that a special examination of the same kind as the suggested annual examinations be held in about seven weeks. This would enable six weeks notice of it to be advertised. If the Commissioners are prepared to accede to this suggestion, advertisements will be issued from this office, giving notice of the examination, directing candidates to signify their intention to compete to the Civil Service Commissioners before such day as you shall name, and informing them that they will thereupon receive further instructions from the Commissioners.

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary for Ireland.

Sir, 20th September 1869.

I am directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 16th instant, relative to the examinations, under the Act 25 & 26 Vict. c. 106, of candidates for the situation of County Surveyor (Ireland).

And in reply, I am to acquaint you that in compliance with the wish of the Lord Lieutenant, the Commissioners will consider 26 and 40 as the prescribed limits of age for the situation in question, and will examine all candidates who may present themselves in the subjects, and under the conditions, set forth in the accompanying schedule. For the situations now vacant they will be prepared to hold a competitive examination, commencing on the 2nd of November, and they will arrange so as to give the candidates a fortnight's interval between the two parts of the examination.

With regard to the proposal that a similar examination should take place annually in June, with the view of selecting candidates to be appointed to any vacancies which may occur during the year following, I am to state that the Commissioners would gladly conduct such examinations in the manner proposed; but I am to request that you will submit for the consideration of his Excellency the question whether this course is compatible with the 2nd section of the Act above referred to, which appears, if they rightly understand it, to require that the examination of persons desirous to fill any vacancy should not take place until after such vacancy has occurred.

I am, &c.

NATIONAL EDUCATION OFFICE (IRELAND).

National Education Office (Ireland)

Examination of inspectors

The Secretary, Civil Service Commission, to the Secretaries National Education Office.

Gentlemen, 17th February 1870.

With reference to your letter of the 22nd December last relative to the subjects of examination for the situation of inspector of national schools.

NATIONAL EDUCATION OFFICE (IRELAND).

Examination of inspectors.

I am directed by the Civil Service Commissioners to suggest for the consideration of the Board of National Education that under the respective heads of English literature, and rhetoric, and criticism, the text books mentioned below might with advantage be substituted for those which have hitherto been prescribed.

I am further to suggest whether it might not be desirable to give out fresh sets of subjects at intervals of two or three years.

I have, &c.

Literature.

Chaucer's prologue and Knight's Tale.
Spenser's Fairy Queen. Books I., II.
Shakespear (Merchant of Venice and Richard the Second).
Bacon's Advancement of Learning.
Dryden's Absalom and Ahithophel.
Locke's Essay. Book I.

Rhetoric and Criticism.

Campbell's Rhetoric.
Burke on the Sublime and Beautiful.

The Secretaries, National Education Office (Ireland), to the Secretary, Civil Service Commission.

SIR, Dublin, 3rd March 1870.

HAVING laid before the Commissioners of National Education your letter of the 17th ultimo, suggesting some alterations in the programme of subjects of examination for the office of inspector of Irish national schools, we are directed to thank the Civil Service Commissioners for their advice, and to say that a special committee of the board has been appointed to consider the proposed change in the subjects of literature and rhetoric, and the propriety of making other changes in the programme. These would not come into operation before 1871.

We are, &c.

The Secretaries, National Education Office (Ireland), to the Secretary, Civil Service Commission.

SIR, 28th July 1870.

WE are directed to transmit for the information of the Civil Service Commissioners, three copies of the revised programme of examination for candidates for the office of inspector of national schools in Ireland. We are further directed to state that some of the works named in your letter of the 17th February last, have been introduced into the obligatory course,—as, Shakspeare's Merchant of Venice, Dryden's Absalom and Ahitophel, Campbell's Rhetoric.

The Commissioners of National Education have also added a short course of Latin to the obligatory course, and made some other changes, which a perusal of the new programme will explain.

The Civil Service Commissioners will please to observe that, in "Trigonometry," the candidates are not to be examined beyond the solution of plane triangles; and in logic in the lessons on reasoning only.

We have, &c.

NATIONAL EDUCATION OFFICE (IRELAND).

ENCLOSURE.

COURSE of EXAMINATION for CANDIDATES for INSPECTORSHIPS under the BOARD of NATIONAL EDUCATION, IRELAND.

OBLIGATORY SUBJECTS.

	No of Marks for each Subject.	Examination of inspectors.
1. ENGLISH:—		
Consisting of—		
English composition	800	2,000
Spelling and grammar		
Literature — *Bacon's* Essays. Some of *Edmund Burke's* Works (American Taxation, and on Conciliation with America, and Address to Electors of Bristol before going to Poll, 1780). *Macaulay*: Essays on Clive and Hastings. *Shakspeare*: Othello, Macbeth, Julius Cæsar, and Merchant of Venice. *Milton* (Sonnets, L'Allegro, Penseroso, Comus, and I. II. Books of Paradise Lost). *Dryden*: Absalom and Ahitophel, Palamon and Arcite. *Pope*: Essay on Man. *Tennyson*: Ulysses, Tithonus, and Elaine.	800	
Rhetoric and Criticism—*Whately and Campbell*	400	
2. ELEMENTARY MATHEMATICS:—		
Consisting of—		
Arithmetic	600	1,700
Euclid, 1st, 2nd, 3rd, and 6th books	400	
Algebra, including quadratic equations	400	
Trigonometry, to solution of plane triangles only	300	
3. GEOGRAPHY		500
4. HISTORY, *Smith's* Greece, *Liddell's* Rome		400
5. PHYSICAL SCIENCE—Mechanics, with any one of the following subjects: —hydrostatics, pneumatics, or optics		600
6. LOGIC, lessons on reasoning only		300
7. POLITICAL ECONOMY (*Smith's* Wealth of Nations, book I., and easy lessons on money matters)		300
8. BOOK-KEEPING		200
9. LATIN:—		
Virgil—three first books of the Eneid		800
The Odes of Horace, not to include their metrical construction		
Sallust		
10. EDUCATION:—		
Tracts of *Ascham*, *Milton*, and *Locke*		200
Joyce's Handbook of School Management		
Robinson's Manual of Method and Organization		
Total		7,000

NOTE.—No candidate will be appointed whose marks on the whole course above mentioned do not amount to 2,300, or who shall fail in showing a competent knowledge of any one of the above subjects.

OPTIONAL COURSE.

	No. of Marks for each Subject.	The Greatest No. of Marks attainable.
1. AN EXTENDED COURSE OF GREEK AND LATIN	1,000	1,000
2. „ „ OF FRENCH	400	400
3. „ „ OF GERMAN	400	
4. „ „ OF ITALIAN	400	

NOTE.—No Candidate will be examined in more than one modern language.

5. LOGIC (Whately, Mill, Books I., II., III., and V.)	400	1,800
6. HISTORY AND PHILOSOPHY OF EDUCATION	400	
7. POLITICAL ECONOMY, Smith's Wealth of Nations—Books I., II., III., and V., J. S. Mill (Books I., II., III., and V.)	400	
8. HIGHER MATHEMATICS (Spherical Trigonometry, Theory of Equations, Elements of Differential and Integral Calculus)	600	
9. NATURAL SCIENCE:—		
(a.) Chemistry, Heat, Electricity, and Magnetism (1) (2) (3) (4)	200 each	800
(b.) Animal and Vegetable Physiology, with principles of Classification (*Carpenter*) (5) (6)		
(c.) Geology, Mineralogy (*Ansted, Page*) (7) (8)		
Total attainable		3,800

NATIONAL EDUCATION OFFICE (IRELAND).

No candidate will be allowed to be examined in more than three of the branches of knowledge included under last head—Natural Science; but with this restriction and that above stated confining him to one Modern Language, he is at liberty to ask to be examined in all the subjects.

Examination of inspectors.

A candidate will not get credit for any subject in the Optional Course unless his marks show him to be possessed of a competent knowledge of that subject.

The successful candidate at the examination must attend at the Inspection Office and Schools in Marlboro'-street to learn the details of his future duties, and he will not receive his appointment unless he shows by his conduct, and the tests to which he may be submitted there, that he is fully competent to perform the duties of an inspector.

Candidates must be at least 23 years of age and not more than 34.

Candidates must produce satisfactory certificates of age, of general good health, and of moral character and regular habits.

All persons nominated to inspectorships, in the service of the Commissioners of National Education, must pass a satisfactory examination, in the subjects in the above programme, under the direction of the Civil Service Commissioners.

By Order

JAMES KELLY,
WM. H. NEWELL } Secretaries.

Office of National Education, Dublin,
July, 1870.

POST OFFICE.

POST OFFICE.

Election of youths by the Civil Service Commissioners.

The Secretary, Post Office, to the Secretary, Civil Service Commission.

SIR, General Post Office, London, 17th June 1870.

I AM directed by the Postmaster-General to state to you that he will be glad if the Civil Service Commissioners will be good enough to consider whether they could furnish suitable candidates for the several classes of youths to be employed in this department.

The number of youths in these classes, their rates of pay, their future prospects, the qualifications required from them, and the nature of their duties, are as follows:—

In the Savings Bank the number of the class of youths to be employed as clerks is 60, and the scale of salary is 30*l.* a year, rising to 50*l.* by annual increments of 5*l.* a year.

The scale of the class above, the general body of clerks, is 80*l.* a year, rising after two years' service by 10*l.* a year to 240*l.* a year.

The subjects of examination for the class of youths are—

1. Exercises designed to test handwriting, and writing from dictation.
2. Geography (elementary).
3. Arithmetic, including reduction, rule of three, and practice.

The limits of age are from 13 to 16.

These youths, so long as they are in their class, must reside in or near London, and either with their parents or guardians.

Their employment will not give them any claim to superannuation, compensation, gratuity, or other allowance under the Superannuation Acts of 1834 or 1859.

Their services will be dispensed with at any time on the score of inefficiency, ill-health, or misconduct, or upon their attaining the age of 19; but the Postmaster-General will be ready to consider applications from them to be appointed to the permanent establishment.

In the Circulation Department the number of the class of youths to be employed as clerks for sorting purposes is 30. The scale of salary is 45*l.* a year, rising by 5*l.* a year to 80*l.*

The scale for the class above is 80*l.* a year, rising by 10*l.* a year to 240*l.* a year.

The hours of attendance for youths in the sorting class are from 5 a.m. to 9 a.m., and from 5 p.m. to 8 p.m., but they may be called on duty at any other times when needed.

The other conditions prescribed for the class of youths in the Savings Bank are applicable to the Circulation Department.

The number of youths to be employed chiefly in sorting newspapers will be about 135 as follows :—

15 at 6*s.* a week.
50 at 9*s.* a week.
70 at 12*s.* a week.

All candidates will enter at 6*s.* a week, which wages they will retain until it can be seen that they are qualified to do the work required.

The hours of attendance are from 4.30 a.m. to 8.30 a.m., and from 4.30 p.m. to 8 p.m.

Candidates are to be examined as follows, viz. :—

1. Writing own name and address.
2. Reading with facility the addresses of letters.
3. Adding a few figures together.

The limits of age are to be from 13 to 16, but the boys must be strong, and not less than 4 feet 10 inches in height.

They will be required, so long as they are in the class of youths, to reside either with parents or guardians, and within two miles of the office at which they are employed.

The other conditions prescribed are the same as those for the class of youths in the Savings Bank.

Telegraph messengers. The number of these boys is between 700 and 800.

Their wages are 5*s.* a week.

The other conditions prescribed are the same as those for newspaper sorters.

In the event of the Commissioners deciding that they will be prepared to furnish candidates for the several classes, it will be necessary to adopt some plan to ensure the employment of persons who are physically as mentally capable of doing the work required from them, and who are otherwise suitable.

In the Account Branch, for instance, the ordinary hours of attendance are from 10 a.m. to 4 p.m. ; a knowledge of figures particularly is required, and the youths should be of good mien, as they will be associated with the established clerks.

In the Circulation Office strength and bodily activity are very important qualifications.

Eight hours of daily attendance are required, and the duty commences at from half-past 4 to 5 o'clock in the morning.

The same remarks apply to the Telegraph Office, only there the duty does not commence as a rule before 8 a.m., and continues for 10 hours.

The candidates will, it is understood, be invited in the first instance by the Civil Service Commissioners, but it could probably be arranged that before they underwent any educational examination, they should present themselves at the Post Office, in order that their suitableness for the respective departments might be generally ascertained.

A list of those candidates who were not considered disqualified would then be furnished to you, with an indication of the department for which it was considered they were best fitted.

POST OFFICE.

Selection of youths by the Civil Service Commissioners.

As vacancies occurred the fact would be communicated to you, and you would send to the Postmaster-General a list of such suitable youths as had passed the test examination, with a statement of their parentage, &c., in a form to be agreed upon, in order that his Lordship might have an opportunity of striking out the names of those who, in his opinion, need not compete for employment.

Assuming that these suggestions are adopted, perhaps as it is very desirable that no disappointment should be created, you would not object to enabling me to submit to the Postmaster-General a draft of the advertisement which you would propose to issue.

I am, &c.

The Secretary, Civil Service Commission, to the Secretary, General Post Office.

SIR, 24th June 1870.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 17th instant, conveying the request of the Postmaster-General that the Commissioners would consider whether they could furnish suitable candidates for the several classes of youths to be employed in the Post Office, as therein described.

In reply I am to acquaint you, for the information of the Postmaster-General, that the Commissioners see no reason to doubt that they will be able to furnish an adequate supply of suitable candidates for the situations in question ; and I am to request that you will submit to his Lordship the accompanying memorandum, setting forth in detail the arrangements which they would propose to adopt for this purpose.

I am to add that, on learning that these arrangements are approved by Lord Hartington, the Commissioners will proceed to carry them into effect with as little delay as possible.

I have, &c.

ENCLOSURE A.

PROPOSED ADVERTISEMENT.

(*To be published in the Newspapers.*)

Youths between 13 and 16, desirous of employment in the General Post Office, London, in any of the under-mentioned capacities may apply personally at the office of the Civil Service Commissioners, Cannon Row, Westminster, S.W., on any week day between 10 and 4.

1. Boy clerks in Savings' Bank. Salary 30*l.* to 50*l.* a year.
2. Boy clerks in Circulation Department. Salary 45*l.* to 80*l.* a year.
3. Boy newspaper sorters in Circulation Department. Wages 6*s.* to 12*s.* a week.
4. Boy telegraph messengers. Wages 5*s.* a week.

Full particulars as to the nature of the employment, subjects of examination, &c. may be obtained on application personally or by letter to the Secretary, Civil Service Commission, as above.

ENCLOSURE B.

(*Document to be given or sent to Inquirers.*)

BOY CLERKSHIPS IN THE SAVINGS' BANK DEPARTMENT OF THE GENERAL POST OFFICE.

Application for these situations may be made by candidates personally at the office of the Civil Service Commissioners, Cannon Row, Westminster, on any week-day between the hours of 10 and 4.

The limits of age for the situation are from 13 to 16.

Post Offic

Selection of youths by th Civil Service Commissione

Candidates will, at the time of their application, be required to add up a column of figures, and to copy a passage put before them, as a specimen of handwriting.

If these exercises should prove satisfactory to the Civil Service Commissioners, and the candidate appears to be within the limits of age, he will be instructed by letter to attend at the General Post Office to be examined as to his physical qualifications.

In case he should appear to be in all respects an eligible candidate for the situation, the Postmaster-General will cause his name to be sent to the Civil Service Commissioners to be put upon the list for the next competitive examination.

A competitive examination will be held about every two months, or more frequently if necessary, at a time and place which will be communicated to each candidate by letter from the office of the Civil Service Commissioners.

The subjects of the competitive examination will be—

1. Copying and Writing from Dictation.
2. Geography.
3. Arithmetic, including Reduction, Rule of Three, and Practice.

Candidates may offer themselves both for boy clerkships in the Savings' Bank and for boy clerkships in the Circulation Department, and if they pass the preliminary examination for both may, if they are thought eligible by the Postmaster-General, be admitted to the further examination for both situations. If successful they will be appointed to one or the other, as the Postmaster-General may decide.

The boy clerks in the Savings' Bank Department, so long as they remain in their class, must reside in or near London, and either with their parents or guardians.

Their employment will not give them any claim to superannuation, compensation, gratuity, or other allowance under the Superannuation Acts of 1834 or 1859.

Their services will be dispensed with at any time on the score of inefficiency, ill-health, or misconduct, or upon their attaining the age of 19. But the Postmaster-General will be ready to consider applications from them to be appointed to the permanent establishment.

The salary of the boy clerks in the Savings' Bank is 30*l.* a year, rising to 50*l.* by annual increments of 5*l.* a year.

The scale of the class above, the general body of clerks, is 80*l.* a year, rising, after two years' service, by 10*l.* a year to 240*l.* a year.

The ordinary hours of attendance are from 10 a.m. till 4 p.m.

ENCLOSURE C.

(*Document to be given or sent to Inquirers.*)

BOY CLERKSHIPS IN THE CIRCULATION DEPARTMENT OF THE GENERAL POST OFFICE.

Applications for these situations may be made by candidates personally at the office of the Civil Service Commissioners, Cannon Row, Westminster, on any week-day between the hours of 10 and 4.

The limits of age for the situation are from 13 to 16.

Candidates will, at the time of their application, be required to copy a passage put before them (as a specimen of handwriting), to answer some questions in elementary geography, and to add up two or three columns of figures.

If these exercises should prove satisfactory to the Civil Service Commissioners, and the candidate appears to be within the limits of age, he will be instructed by letter to attend at the General Post Office to be examined as to his physical qualities.

In case he should appear to be in all respects an eligible candidate for the situation, the Postmaster-General will cause his name to be sent to the Civil Service Commissioners to be put upon the list for the next competitive examination.

A competitive examination will be held about every two months, or more frequently if necessary, at a time and place which will be communicated to each candidate by letter from the office of the Civil Service Commissioners.

The subjects of the competitive examination will be—

1. Copying and Writing from Dictation.
2. Geography.
3. Arithmetic, including Reduction, Rule of Three, and Practice.

Candidates may offer themselves both for boy clerkships in the Circulation Department and for boy clerkships in the Savings' Bank, and if they pass the preliminary examination for both may, if they are thought eligible by the Postmaster-General, be

POST OFFICE.

Selection of youths by the Civil Service Commissioners.

admitted to the further examination for both situations. If successful they will be appointed to one or the other, as the Postmaster-General may decide.

The boy clerks in the Circulation Department, so long as they remain in their class, must reside in or near London, and either with their parents or guardians.

Their employment will not give them any claim to superannuation, compensation, gratuity, or other allowance under the Superannuation Acts of 1834 or 1859.

Their services will be dispensed with at any time on the score of inefficiency, ill-health, or misconduct, or upon their attaining the age of 19. But the Postmaster-General will be ready to consider applications from them to be appointed to the permanent establishment.

The boys in the Circulation Department will be employed for sorting purposes.

The scale of salary is 45*l.* a year, rising by 10*l.* to 80*l.*

The scale of the class above is 80*l.*, rising by 10*l.* a year to 240*l.* a year.

The hours of attendance are from 5 a.m. to 9 a.m., and from 5 p.m. to 8 p.m., but they may be called for duty at other times when needed.

ENCLOSURE D.

(*Document to be given or sent to Inquirers.*)

SITUATIONS as BOY NEWSPAPER SORTERS in the CIRCULATION DEPARTMENT of the GENERAL POST OFFICE.

Applications for these situations may be made by candidates personally at the Office of the Civil Service Commissioners, Cannon Row, Westminster, on any week-day between the hours of 10 and 4.

The limits of age for the situation are from 13 to 16.

Candidates will at the time of their application be required (as a specimen of hand-writing and of ability to read manuscript) to copy several names and addresses which will be placed before them in manuscript.

If this specimen should prove satisfactory to the Civil Service Commissioners, and the candidate is within the limits of age, he will be instructed by letter to attend at the General Post Office to be examined as to his physical qualifications.

In case he should appear to be in all respects an eligible candidate for the situation, the Postmaster-General will send his name to the Civil Service Commissioners to be put upon the list for the next competitive examination.

A competitive examination will be held about every two months, or more frequently if necessary, at a time and place which will be communicated to each candidate by letter from the Office of the Civil Service Commissioners.

The subjects of the competitive examination will be—

1. Writing.
2. Reading addresses of letters.
3. Adding a few figures together.

Marks will be assigned by the medical examiner which will be added in with those assigned for the above subjects.

The boy newspaper sorters will be required, so long as they remain in that class, to reside either with their parents or guardians, and within two miles of the office at which they are employed.

Their employment will not give them any claim to superannuation, compensation, or other allowance under the Superannuation Acts of 1834 or 1859.

Their services will be dispensed with at any time on the score of inefficiency, ill-health, or misconduct, or upon their attaining the age of 19. But the Postmaster-General will be ready to consider applications from them to be appointed to the permanent establishment.

The number of youths to be employed in this class (chiefly in sorting newspapers) is 135, as follows:—

15 at 6*s.* a week.
50 at 9*s.* „
70 at 12*s.* „

All candidates will enter at 6*s.* a week, which wages they will retain until it can be seen that they are qualified to do the work required.

The hours of attendance are from 4.30 a.m. to 8.30 a.m., and from 4 p.m. to 8 p.m., but they may be called on for duty at other times when needed.

Selection of youths by the Civil Service Commissioners

ENCLOSURE E.

(*Document to be given or sent to Inquirers.*)

SITUATIONS of BOY TELEGRAPH MESSENGERS.

Applications for these situations may be made by candidates personally at the Office of the Civil Service Commissioners, Cannon Row, Westminster, on any week-day between the hours of 10 and 4.

The limits of age for the situation are from 13 to 16.

Candidates will, at the time of their application, be required (as a specimen of handwriting and of ability to read manuscript) to copy several names and addresses which will be placed before them in manuscript.

If this specimen should prove satisfactory to the Civil Service Commissioners, and the candidate is within the limits of age, he will be instructed by letter to attend at the General Post Office to be examined as to his physical qualifications.

In case he should appear to be in all respects an eligible candidate for the situation the Postmaster-General will send his name to the Civil Service Commissioners to be put upon the list for the next competitive examination.

A competitive examination will be held about every two months, or more frequently if necessary, at a time and place which will be communicated to each candidate by letter from the Office of the Civil Service Commissioners.

The subjects of the competitive examination will be—

1. Writing.
2. Reading addresses of letters.
3. Adding a few figures together.

Marks will be assigned by the medical examiner which will be added in with those assigned for the above subjects.

The boy telegraph messengers will be required, so long as they remain in that class, to reside either with their parents or guardians and within two miles of the office at which they are employed.

Their employment will not give them any claim to superannuation, compensation, or other allowance under the Superannuation Acts of 1834 or 1859.

Their services will be dispensed with at any time on the score of inefficiency, ill-health, or misconduct, or upon their attaining the age of 19. But the Postmaster-General will be ready to consider applications from them to be appointed to the permanent establishment.

The wages of these boys are 5*s.* a week.

The Secretary, General Post Office, to the Secretary, Civil Service Commission.

SIR, 27th June 1870.

HAVING laid before the Postmaster-General your letter of the 24th instant, I am directed to acquaint you, for the information of the Civil Service Commissioners, that his Lordship entirely approves of the arrangements which they intend to make with the view of obtaining, by open competition, candidates for the appointment of Boy Clerks, Boy Sorters, and Boy Messengers (Telegraph) in the Post Office.

I am, &c.

The Secretary, General Post Office, to the Secretary, Civil Service Commission.

SIR, General Post Office, London, 28th June 1870.

WITH reference to the enclosures in your letter of the 24th instant, in which it is stated that marks for physical qualifications will be assigned to candidates for the situations of Boy Sorters and Boy Telegraph Messengers, and which marks are to be added to those given for mental qualifications, I request you will be good enough to inform me what proportion the Civil Service Commissioners consider the marks for physical qualifications should bear to those for mental, as it is essential that the marks for one subject should not overwhelm those for the other.

I have, &c.

POST OFFICE.

Selection of youths by the Civil Service Commissioners.

The Secretary, Civil Service Commission, to the Secretary, General Post Office.

SIR, 1st July 1870.

WITH reference to your letter of the 28th ultimo, inquiring what proportion the Civil Service Commissioners consider the marks for physical qualifications should bear to those for mental, in the case of Boy Sorters and Boy Telegraph Messengers in the Post Office.

I am directed by the Civil Service Commissioners to acquaint you that, as regards the Boy Sorters, they propose that the marks should be equally divided between mental and physical qualifications ; and that as regards the Boy Telegraph Messengers, in the case of whom superior physical qualifications are perhaps somewhat less essential, they propose that the marks shall be divided in the proportion of two for mental to one for physical qualifications.

OFFICE OF WORKS.

OFFICE OF WORKS.

Examination for promotion to be assistant surveyor of works.

The Secretary, Office of Works, to the Secretary, Civil Service Commission.

SIR, Office of Works, &c., 8th April 1870.

I AM directed by the First Commissioner of Her Majesty's Works, &c., to acquaint you, for the information of the Civil Service Commissioners, that with the view of appointing to a newly created post of an assistant surveyor of works, &c., in this department the person best qualified to discharge the duties which will devolve upon him, it is proposed to submit to a competitive examination certain candidates for the appointment. He will be obliged to the Civil Service Commissioners if they will be good enough, therefore, to make arrangements for the examination of such persons as may be sent to them for the purpose ; and, after such examination, if they will report whether any of the candidates have successfully passed through it, and if so, which of them has acquitted himself most to the satisfaction of the examiners.

The duties of an assistant surveyor of works, &c. comprise,—

1. The preparation of drawings and specifications for new buildings and for the alteration and maintenance of existing buildings, in use, or proposed to be used, for the public service.

2. The preparation of estimates in detail of the cost of such works and the superintendence of their execution.

3. The examination for the purpose of certifying of tradesmen's accounts for works performed under his direction.

The First Commissioner will be obliged to the Civil Service Commissioners if they will have the goodness to inform him when they will be able to examine the candidates to be sent to them.

I am; &c.

The Secretary, Civil Service Commission, to the Secretary, Office of Works.

SIR, 11th April 1870.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 8th instant relative to the situation of assistant surveyor of works, &c. under the office of works.

And, in reply, I am to acquaint you for the information of the First Commissioner of Her Majesty's Works, &c. that the Commissioners will readily undertake the conduct of the examination therein referred to in the manner proposed, and that if the names and addresses of the candidates can be communicated to them not later than the 26th instant

they will be prepared to commence the examination on Tuesday the 3rd May.

OFFICE OF WORKS.

I have, &c.

The Secretary, Civil Service Commission, to the Secretary, Office of Works.

Examination for promotion to be assistant surveyor of works.

SIR, 30th April 1870.

WITH reference to your letter of the 8th instant and subsequent correspondence relative to the examination of candidates for the post of assistant surveyor of works, &c.

I am directed by the Civil Service Commissioners to request that you will oblige them by informing me whether they are right in understanding that it is not the wish of the First Commissioner of Works, &c. that they should make inquiries such as are instituted in ordinary cases, as to the age, health, or character of the candidates.

I have, &c.

The Secretary, Office of Works, to the Secretary, Civil Service Commission.

SIR, Office of Works, &c., 2nd May 1870.

I AM directed by the First Commissioner of Her Majesty's Works, &c., to acknowledge the receipt of Mr. Walrond's letter of the 30th ultimo relative to the examination of candidates for the post of assistant surveyor of works, &c., and to inform you, in reply, that the First Commissioner will be obliged by the Civil Service Commissioners making the inquiries usually instituted in ordinary cases as to the age, health, or character of a candidate for appointment.

I have, &c.

The Secretary, Office of Works, to the Secretary, Civil Service Commission.

SIR, Office of Works, &c., 6th May 1870.

Limits of age for assistant surveyor of works.

I AM directed by the First Commissioner of Her Majesty's Works, &c., to acknowledge the receipt of your letter of the 2nd instant in reference to the age of candidates for the appointment of assistant surveyor of works, &c., and I am to state, in reply, that the First Commissioner does not propose to fix any limit of age in the case of the candidates now under examination by the Civil Service Commissioners, but that limits will be determined in the event of a future examination for a similar appointment.

I have, &c.

The Secretary, Civil Service Commission, to the Secretary, Office of Works.

SIR, 17th May 1870.

WITH reference to your letter of the 8th ultimo and subsequent correspondence;

I am directed by the Civil Service Commissioners to transmit for the information of the First Commissioner of Works, &c. a table of marks showing the results of the examination which they have held.

The Commissioners regret that they are unable to report any one of the candidates as having passed the examination successfully, each having shown himself deficient in some one or more of the qualifications specified in your letter.

Under these circumstances the Commissioners will assume, unless otherwise informed, that it is not the wish of the First Commissioner

OFFICE OF WORKS.

that they should proceed to make further inquiry as to the health or character of these gentlemen.

I have, &c.

The Secretary, Office of Works, &c., to the Secretary, Civil Service Commission.

SIR, Her Majesty's Office of Works, &c., 13th June 1870.

Open competition for situation of assistant surveyor of works.

ADVERTING to your letter of the 17th ultimo, I am directed by the First Commissioner of Her Majesty's Works, &c., to state that he has received applications from about 100 persons in reference to the vacant appointment of assistant surveyor of works in this department; and that he proposes that such of the applicants as may become candidates for the office should enter into a public competition to be conducted by the Civil Service Commissioners; and I am to request that you will move the Commissioners to inform him whether they can undertake the competition, and, if so, at what date.

The duties of the appointment are to design and superintend the execution of new buildings and additions to or alterations of existing buildings; and to superintend and be responsible for the repair and maintenance of buildings. The candidates require a knowledge of the strength of all building materials, their nature, and the principles and methods of applying them to building purposes, the prices of materials and the value of labour upon them. They should understand architectural drawing, and how to make working plans and specifications, to take out quantities and estimate work to be done, the measurement of work executed and abstracting and bringing it to bill in detail.

The person to be selected should not be less than thirty years of age nor more than forty, and as the First Commissioner will accept the recommendation of the Commissioners he trusts that they will fully satisfy themselves of the character and complete trustworthiness of the candidate.

I am, &c.

The Secretary, Office of Works, to the Secretary, Civil Service Commission.

SIR, H.M. Office of Works, 24th June 1870.

ADVERTING to my letter of the 13th instant, in reference to the vacant appointment of assistant surveyor of works of this department, I am to add that the person who may be selected to fill that office will be required from time to time to make technical reports, and that his fitness for making such reports, properly composed and spelt, should be tested as a part of his examination.

I have, &c.

The Secretary, Civil Service Commission, to the Secretary, Office of Works.

SIR, 27th June 1870.

HAVING laid before the Civil Service Commissioners your letter of the 13th instant, relative to the proposed competition for the vacant appointment of assistant surveyor of works, I am directed to acquaint you that the Commissioners will be prepared to undertake the conduct of the examination in the manner proposed, and that they will be able to commence it on Tuesday the 5th proximo, at 10 a.m., provided the names of the candidates can be communicated to them on the preceding day.

It is assumed that the First Commissioner will cause the candidates to be instructed to attend at this office at the time named.

I have, &c.

Appendix III.

SPECIMENS OF EXAMINATION PAPERS

[FOR THOSE SET AT THE MILITARY ENTRANCE EXAMINATIONS SEE APPENDIX IV., p. 141, AND FOR THOSE SET AT THE EXAMINATIONS FOR THE INDIA CIVIL SERVICE SEE APPENDIX V., p. 270],

1869–70.

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PAPERS SET AT AN EXAMINATION FOR COUNTY SURVEYORSHIPS IN IRELAND. [NOVEMBER 1869.]

PURE MATHEMATICS.

Time allowed, 3 hours.

1. Prove that the three angles of a triangle are together equal to two right angles.

   The quadrilateral formed by the straight lines joining the middle points of adjacent sides of a parallelogram will be rectangular if the parallelogram be equilateral but not otherwise.
2. In a circle, the angle in a semicircle is a right angle; and the angle in a segment less than a semicircle is greater than a right angle.
3. If a circle touch internally another of twice the diameter, and from the centre of the latter two radii be drawn cutting the former, the arcs of the inner and outer circle comprised between the radii will be equal in length.
4. The angles at the centre of a circle are to one another as the circumferences on which they stand.
5. Simplify:

$$(x+\sqrt{2x}+1)\,(x^2+\sqrt{3x}+1)\,(x^2-\sqrt{3x}+1)\,(x-\sqrt{2x}+1),$$

and $\dfrac{1}{x-1}-\dfrac{1}{x+1}-\dfrac{x+2}{x^2+x+1}+\dfrac{x-2}{x^2-x+1}$.

6. Solve the equations:

(α) $\dfrac{x}{x-4}+\dfrac{2+x}{2-x}=\dfrac{8}{x^2-1}$.

(β) $\dfrac{x}{x-4}+\dfrac{x+2}{x-2}=5$.

(γ) $\sqrt{2}+1=\dfrac{1}{\sqrt{2}-1}$.

7. If $a+b : c+d :: a : c$ and a be greater than b, then $a-c$ will be greater than $b-d$.
8. The roots of the equation $\left(\dfrac{x+k}{h}\right)^2+\dfrac{x}{h}+\dfrac{h}{k}=0$ will be equal if $\dfrac{\sqrt{hk}}{2}$ be a geometric mean between $k+h$ and $h-k$.
9. Write down the first five terms, and the r^{th} term in the expansion of $(1-3x)^{\frac{4}{3}}$. Also find the values of n when the coefficients of the 5th, 6th, and 7th terms in the expansion of $(1+x)^n$ are in arithmetical progression.
10. Define the cotangent of an angle. Show by a diagram why the expression for the cotangent of an angle in terms of the sine of that angle has two values.

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11. Prove the formulæ :

$$(\alpha)\ \cos 2A + \cos 2B = 2\cos(A+B)\cos(A-B)$$

$$(\beta)\ \operatorname{cosec} A + \operatorname{cosec} 2A = \cot\frac{A}{2} - \cot 2A.$$

12. Two sides of a triangle are 19744 and 32950 yards respectively, and the angle opposite the greater is 59° 4′ 10″ : solve the triangle.

Log 1·9744 = ·2954351	L sin 59° 4′ = 9·9333688
Log 3·2950 = ·5178545	diff. for 20″ = 253
Log 3·8412 = ·5844669	L sin 30° 55′ 40″ = 9·7109269
diff. 113	diff. for 20″ = 703

13. Determine the area of a regular polygon of n sides circumscribed about a given circle. The area of a regular inscribed polygon is to that of the circumscribed polygon of the same number of sides as 3 : 4, find the number of sides.

14. Define the circular measure of an angle: and show that if θ be the circular measure of a positive angle less than a right angle sin θ is intermediate in value between θ and $\theta - \frac{\theta^3}{4}$.

Prove that sin 1″ differs from the circular measure of 1″ by a quantity less than $\frac{1}{10^{16}}$.

DIFFERENTIAL AND INTEGRAL CALCULUS, AND GEOMETRICAL OPTICS.

Time allowed, 3 hours.

1. Define a differential coefficient ; and from your definition find that of x^n. Find also $\frac{d^n y}{dx^n}$ when $y = x(\sin x + \cos x)$.

2. If $f(x)$ be a continuous function of x, prove that $f(a+h) = f(a) + h f'(a+\theta h)$ where θ is a proper fraction.

3. Show how to find the maxima and minima values of a function of one independent variable. Find those of $(x-a)^n$ and $\left(\frac{a}{x}\right)^x$.

4. Investigate a method of determining whether any given point in a given plane curve be a point of inflexion. Find the points of inflexion in the curves—

(1) $x^4 - a^2x^2 + a^3y = 0$.

(2) $(y-a)^5 = a^2(x-b)^3$.

5. Transform $\frac{d^3y}{dx^3} + a\frac{d^2y}{dx^2} + b\frac{dy}{dx}$ into an expression in which y is the independent variable, x and y being connected by an equation.

6. Integrate $\int\sqrt{\frac{a+x}{x}}\,dx$, $\int_0^\infty \frac{dx}{(x^2+a^2)(x^2+b^2)}$, $\int_0^\pi \cos mx \cos nx\,dx$.

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7. Show how to rationalize an integral of the form $\int x^m (a+bx^n)^{\frac{p}{q}} dx$.

   Integrate $\int \frac{dx}{x^3 (x-1)^{\frac{1}{2}}}$.

8. Investigate a formula for finding the volume of a figure of revolution. Apply it to find the volume of a frustrum of a prolate spheroid cut off by a plane perpendicular to the axis through one focus.
9. Investigate the position of the geometrical focus for a conical pencil of light incident directly upon a spherical reflector.
10. Enunciate the laws of refraction of light at a plane surface. A ray of light being incident on one face of a prism of glass in a plane at right angles to the axis, find the relation between the angle of incidence and the index of refraction of the glass in order that the ray may suffer total internal reflection at the second face; the section of the prism being an equilateral triangle. Find the whole deviation of a ray which passes through a prism in this way, and show whether there will be chromatic dispersion.
11. It is required to throw the image of a luminous object through a small hole in a shutter on to a screen at a fixed distance from the shutter, by help of a lens placed between the object and the opening: investigate the distances from the shutter at which the lens and object should severally be placed in order to give the brightest image on the screen.
12. Describe the construction of Newton's telescope; and trace the course of a pencil of light proceeding from a point near the axis of the instrument, but not in the axis, through such a telescope, marking distinctly the position of each successive focus. Explain clearly how such a telescope enables us to see stars in the daytime.

MECHANICAL PHILOSOPHY. I.
(STATICS AND DYNAMICS.)

Time allowed, 3 hours.

1. Define the resultant of two or more forces. If any number of forces in one plane act on a material particle, show how to determine the direction and magnitude of their resultant. Also show that if a particle remain at rest under the action of any given forces in one plane the sum of the resolved parts of those forces in any proposed direction will be zero.
2. Define the centre of gravity of a system of material particles. Find that of a shell of which the outer and inner surfaces are spheres, but not concentric. Also that of a solid hemisphere.
3. Three sticks are set up so as to meet in a point, where they are tied together, and a weight hung from them; investigate the portion of the weight borne by each stick, the lengths of the sticks and the positions of their feet on the ground being given.
4. Define virtual velocities, and enunciate the principle of virtual velocities. Apply it to find the relation between the power and weight on a screw. Why is this principle inapplicable in cases of friction? Enunciate an equivalent principle which shall include such cases.
5. Prove that a couple cannot be in equilibrium with any single force. Also that the effect of a couple on a body at rest will be

unaltered if the couple be replaced by another of equal moment, the plane remaining the same, the arms in the same line and with a common extremity. County Surveyorship (Ireland), November 1869.

6. Define equilibrium, also stable and unstable equilibrium. Show that a system of rigid bodies acted on by no forces but their weights, mutual actions, and the pressures of smooth immoveable surfaces will be in stable equilibrium when the centre of gravity has the lowest position it can attain by moving the system consistently with the connexion of the parts.

   A solid hemisphere rests with its curved face downwards on the top of another sphere ; find the ratio between the radii in order that equilibrium may be stable, supposing that there is no sliding.

7. Explain how velocity is measured, both when uniform and when variable. Two spheres of weights, a and b, move from the same point with given uniform velocities in given straight lines : determine the motion of the centre of gravity as to direction and velocity.

8. Enunciate the three laws of motion ; and explain how the second is established. Find the direction and magnitude of the impulse which will change the direction of motion of a material particle by a given angle without altering its velocity, the mass of the particle and its original direction and velocity of motion being given. If the impulse be given by the direct impact of another particle, both being perfectly elastic, show that the whole *vis viva* will be the same before and after the impact.

9. Explain how work is measured. Find the amount of work accumulated in a train of thirty tons weight when the velocity is sufficient to carry it half a mile up an incline of 1 in 100, the resistances on level road being equal to 8 lbs. per ton.

   Find also the work accumulated in a uniform cylinder of given dimensions and weight revolving with an angular velocity w about its axis.

10. If a material particle describe an orbit under the action of no forces but such as pass through a fixed point, show that the areas swept out by the line joining the particle and the fixed point are proportional to the times of describing them.

11. A material particle is acted on by a constant force which is always perpendicular to the direction in which the particle is moving : show that the particle describes a circle, and find its radius when the velocity of the particle and the force are given.

12. Find the time of a small oscillation of (1) a simple pendulum, (2) a triangular board about a horizontal axis at right angles to the face of the board, the triangle being isosceles, and the axis passing through a point in the line joining the vertex with the middle of the base.

MECHANICAL PHILOSOPHY. II.
(HYDROSTATICS, HYDRAULICS, PNEUMATICS, AND HEAT.)

Time allowed, 3 hours.

1. Explain what is meant by the pressure at a point within a fluid, and state how it is measured. Prove that in a mass of liquid at rest under the action of gravity the pressure at any point is proportional to its depth below the surface.

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2. A bucket, in the form of a frustrum of a right cone with the base downwards, is filled to a given height with water : find the whole pressure on the base, and the resultant vertical and horizontal pressures on a unit of area of the side. Show whether the whole horizontal (or vertical) pressure on a unit of area of the side is or is not equal to the resultant horizontal (or vertical) pressure.
3. Investigate the conditions of equilibrium of a floating body. Also define the *metacentre*, and show the bearing of the position of the metacentre on the stability of the equilibrium. A square thin board of uniform thickness floats in water : show that if the broad face be vertical the equilibrium will not in general be stable.
4. Show how to compare the specific gravities of two liquids. A vessel full of a liquid A has when weighed in other liquids B and C the apparent weights A_b and A_c respectively; and the same vessel filled with B has when weighed in C and A the apparent weights B_c, B_a ; and when filled with C and weighed in A and B the apparent weights C_a, C_b respectively : show that $A_b + B_c + C_a = A_c + B_a + C_b$.
5. Describe the forcing pump, and explain its action. Find the power required to work the pump, both for the up and the down stroke, when the level of the water within and without the pump is given.
6. Describe and explain the hydraulic ram.
7. Explain the flying of a kite. If the kite be in the form of an equilateral triangle, with a tail attached to one corner, find where the string should be fastened to the kite, the size and weight of kite and tail, and the pressure of the wind on a square foot of plane surface, being given.
8. Investigate an expression for determining the difference of the altitudes of two stations by means of a barometer, the temperature being constant.
9. A hollow sphere of uniform small thickness and given radius is sunk to a given depth in the sea; find the force which must be exerted by the material of the vessel in a direction perpendicular to a principal section of the sphere in order to resist compression.
10. Explain what is meant by the mechanical equivalent of heat, and state its numerical value. Show why in an ordinary steam engine only a fraction of the heat supplied by the fuel is ever converted into work. Should you expect this fraction to be greater in a condensing or in a high-pressure engine, and for what reasons?
11. Explain on mechanical principles the fall of temperature observed in the air in the receiver of an air pump when the pump is worked.
12. The diameter of the piston of a steam engine is 3 feet and the length of stroke 5 feet, the number of strokes 13 per minute, the mean pressure of the steam 24 lbs. per square inch, and the modulus of the engine ·6; how many cubic feet of water, each weighing 62·5 lbs., will the engine raise per minute to a height of 200 feet?

INORGANIC CHEMISTRY.

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Time allowed, 3 hours.

1. Describe briefly the chief chemical characters of carbon, iodine, hydrogen, and sodium. It has been conjectured that bromine may be a compound of iodine with chlorine: what reasons give colour to this view?
2. A piece of phosphorus is ignited in a closed vessel of air; describe the results, and explain the chemistry of them.
3. State the composition of ammonia both by weight and by volume. Explain how that compound is usually obtained, and describe its chief chemical characters. Give a method by which ammonia may be obtained synthetically from its elements.
4. Give the volumetric composition of phosphoretted hydrogen and of nitric oxide; also the supposed volumetric composition of carbon dioxide (carbonic anhydride), and the reasoning by which this is arrived at.
5. Describe the process of preparing sodium carbonate from common salt, and explain the chemistry of it.
6. 3·78 grams of silver dissolved in nitric acid produce 5·95 grams of silver nitrate: express the reaction in an equation, and deduce the combining number of silver.
7. Give an account of one process of converting pig into bar iron, and explain the chemistry of it.
8. How would you demonstrate the presence in a piece of bronze of each of its principal constituents? State each step in the process, and its result, clearly. Further, if you wanted to find the proportions in which they were present, how would you proceed?
9. Give a brief account of the metallurgy of lead, supposing the mechanical dressing of the ore to be previously completed.
10. Classify the sulphates, giving the formulæ for one or more sulphate of each type.
11. An electric current is sent by platinum electrodes through a solution of sodium sulphate, then by similar electrodes through a solution of copper sulphate, and lastly by copper electrodes through a solution of sodium chloride: state the nature of the chemical action in each solution, and the compounds or elements which appear at the several electrodes. State also the law which determines the relative quantities of the substances so appearing.
12. Express by equations the reactions of—
    - (α) Sulphuretted hydrogen on lead carbonate and on
    - (β) Ferric chloride respectively.
    - (γ) Potash on solution of common alum in water.
    - (δ) Ammonium chloride on common sodium phosphate.
    - (ϵ) Ammonia on mercuric chloride (corrosive sublimate).

GEOLOGY AND MINERALOGY.

Time allowed, 3 hours.

1. What is the difference between a mineral and a rock? In what sort of rocks and under what circumstances do the following minerals most frequently occur:—tinstone, red hæmatite, analcime, gypsum, galena, garnet?

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2. In which of the systems of crystallization does double refraction occur, and in which of them is there double refraction in some directions but not in all? Show that this corresponds to the law of external symmetry of these systems.
3. State the system of crystallization, the direction of cleavage if conspicuous, and the usual lustre of the following minerals:—felspar, fluor, tinstone, topaz, chlorite, stilbite, apophylite, calcite. Which of them are hydrous? How could you distinguish a tourmaline from a topaz.
4. Define dolerite, breccia, marl, travertine, mica schist, gravel, porphyry. State the class and subdivision of rocks to which you refer each of them.
5. What is pseudomorph? Explain by examples some of the more common processes by which pseudomorphs are produced. In what pseudomorphic forms is quartz found?
6. Explain what tests can be applied to determine the geological age of a trap formation.
7. Describe a delta. Show what will in general be the arrangement of the materials of a delta, and the kind of fossils which may be expected to be found in it.
8. Describe the two principal ways in which ice becomes in the arctic seas a carrier of earthy matter. Explain how such matter is collected, and in what respects it will have a different character in the one case from that which it has in the other.
9. Define unconformable stratification, and draw a section showing such an occurrence. How does oblique bedding differ from it in its origin, and by what characters may the one be distinguished from the other?
10. Name the principal divisions of tertiary strata, and state the grounds on which these divisions rest.
11. Give a tabular statement of the deposits forming the cretaceous group in descending order. Name fossils characteristic of this group, stating the class and order to which each belongs. What formations immediately overlie and underlie respectively the cretaceous group in England, and on the continent?
12. Give the geological position of the carboniferous formation; describe its chief features, both mineral and fossil; and state the general position of the several coal-fields of Great Britain.
13. To what classes of animals do the trigonia, cidaris, trilobite, pterodactyl, belemnite, and nummulite severally belong? State the formations in which they are respectively abundant, and the positions in the geological scale of those formations.

HEAT, ELECTRICITY, AND MAGNETISM.

Time allowed, 3 hours.

1. Define the units usually chosen for measuring, 1st., temperatures; 2nd, quantities of heat. Explain the mode of finding accurately the boiling point in graduating a thermometer.
2. Account on general principles for the fall of temperature which occurs when you dissolve saltpetre in water; and give some other examples which illustrate the same principles.
3. Explain how the tension of aqueous vapour at different temperatures below the boiling point is determined. State in what respects saturated vapours differ from unsaturated.

A certain quantity of air confined over water occupies 50 cubic inches under the atmospheric pressure and at a temperature of 30° C., at which the tension of aqueous vapour is 1·25 inch ; find the volume of the same air when dry and at 0° C. under the same pressure. County Surveyorship (Ireland), November 1869.

4. The specific heat of copper is ·095 : explain fully what that means, and how that number is arrived at.
5. A blackened tin can of boiling water, a bright can of ice-cold water and a lump of ice on a wooden dish are all brought into the same room, which is at 60° F. : trace the actions by which they all gradually acquire one temperature, pointing out the several circumstances which affect the rate at which this temperature is reached. State the law in virtue of which they remain at that temperature when they have once reached it.
6. Describe a gold leaf electroscope ; explain its action and the mode of using it.
7. Show by examples that in the different modes of generating electricity both positive and negative electricity are always produced at the same time, and that their quantities are equal.
8. Explain the action which occurs in charging a Leyden jar. How is it that the same jar can receive a greater charge from one machine than can be given to it by another ? Can it be charged at all from a galvanic battery ?
9. State the cause of the rapid diminution in the current of a galvanic battery with only one liquid, and show how this is avoided in Daniell's battery.
10. Define electro-motive force and resistance in electricity. State the law connecting the resistance of a conductor with its length and thickness. Given r_1 r_2 the resistances of two conductors when used severally, investigate their joint resistance when the circuit is complete through each of them at the same time.
11. Describe the construction of an electro-magnet ; and give a rule for knowing which is the N. pole of such a magnet. Explain why the spark on breaking the connexion between an electro-magnet and battery is greater than the spark on making the connexion.
12. State the law of attraction between unlike poles of two magnets when you vary the distance between them, and explain how this law is verified.
13. Explain how to take an observation with a dip needle and how to avoid error from imperfect centering. Will the temperature of the observing room affect the dip ?

RAILWAY AND CANAL ENGINEERING. I.

Time allowed, 3 hours.

1. Describe one or two ways in which curves may be set out on the ground.
2. In what localities on a line are sharp curves more especially objectionable?
3. What are the dimensions of sleepers, (1) longitudinal; (2) cross. Of what kinds of timber are they usually made, and what are the best means to adopt for their preservation?
4. Describe and illustrate by sketches the arrangements which you would recommend for preserving the sides of a cutting 30 feet

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deep through a pervious sandy soil resting on an impervious clay bed having a considerable dip or inclination across the line.

5. Where a cutting such as that described above has to be executed, show by a series of sketches the mode in which the workmen would be distributed, and the earth excavated and removed, as the work progresses.
6. Give instances of clay cuttings and embankments in which the means of excavation employed would be respectively—
    1. Barrow work.
    2. Horses and carts.
    3. Horses and wagons on rails.
    4. Locomotive.
7. If a railway crosses a public road or a turnpike road by a bridge over the road there are certain requirements by Act of Parliament as to headway, inclination of approaches, fencing and maintenance; detail these requirements.
8. What special steps would you take in the formation of the line, and in fixing its general level, through bogs?
9. Give a sketch of a tipping wagon.

RAILWAY AND CANAL ENGINEERING. II.

Time allowed, 3 hours.

10. In a level stretch of canal several miles in length and in which the water level is above that of the ground, what measures may be taken to prevent an excessive waste of water from the possible failure of a bank, and what provision should be made for making repairs as easy as possible?
11. What are the causes which may lead to the deterioration of the inner slopes of the banks of a canal, and when they are puddled what material should be employed?
12. State (1) either the declivities of bed, or (2) the velocities of current admissible in different kinds of soil for an artificial feeder to a canal.
13. Draw, on a scale of 10 feet to an inch, cross sections of a canal 24 feet wide at the bottom, and 8 feet deep; the level of the water being 2 feet above the level of the ground on either side. The first section in a naturally retentive, and the second in a non-retentive soil.
14. Make a longitudinal and a transverse section of a lock for a rise of 8 feet, showing the arrangement of the sluices; the natural soil being non-retentive.
15. Calculate the discharge of a stream, given 3 sections at intervals of a mile; the difference of level at the extreme sections being $2\frac{1}{2}$ feet. (*See annexed Woodcut.*)
16. Given the dimensions of the largest boat in a navigation canal; how much larger should you make the several dimensions of the locks on it? Is a single lock or a flight of locks more economical of water? Compare the expenditure for a single lock and a flight of three locks of the same total lift in the following case; one boat descending, followed by another ascending, both displacing the same bulk of water.

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17. Where economy of water is of great importance, how can it be promoted by the use of "side basins"?
18. What is the usual rate of towing? What prevents this being increased to any great extent?
19. What are the resistances to traction in the cases of (1) a canal; (2) a good macadamized road; (3) a railway?
20. State anything you may know of the application of power, other than that of horses, to canal haulage.

MARINE ENGINEERING.

HARBOUR, DOCK, SEA, AND RECLAMATION WORKS.

Time allowed, 3 hours.

1. Draw a hand-sketch of the way in which masonry may be bonded to resist the shock of waves in a wharf wall washed by the sea.
   Draw a section of a breakwater for a harbour, and describe its construction.
2. What are the causes of a surf on a shore, and of a bore in a river? Name examples of each. What is a spring tide, and how caused?
3. In docks and harbours great power is commonly required at uncertain intervals for a short time only. Describe the source of power and mode of its application which you consider preferable for this case.
4. Draw a hand-sketch of any one of the following three :—
   (1.) Fourneyron's high pressure turbine.
   (2.) Hydraulic press.
   (3.) Water pressure engine.
   and describe its mode of action.
   State to what circumstances each is peculiarly applicable, also the relation connecting the quantity of water used, head of water, and horse-power of the one you describe.
5. It is required to build a wharf wall on a tidal stream, at a spot where the water is often 12 feet deep. The water is to be kept out during the progress of the work by a cofferdam. The bed of the river consists of 8 feet of silt and 3 feet of gravel overlying a stiff bed of clay. Draw a section of the cofferdam and wall proposed, showing the mode of construction, with the dimensions of the various parts.
6. Describe the manner in which the mouth of tidal harbours or navigable rivers may be kept from becoming closed by accumulations of shingle or bars, otherwise than by mechanical dredging. Give some instances with which you are familiar, with as much detail as you remember.
7. In tidal waters timber is liable to the attack of worms (so called). State your knowledge of the habits of these animals, and the different methods adopted for preserving piles from their attacks. Mention any timber that is not liable to be destroyed in this way.
8. Describe the method of using concrete in sea and dock walls (1) laid under water, (2) in blocks regularly laid, (3) in blocks disposed at random. Give any instances you know.
9. Explain the terms "oscillatory wave" and "wave of translation," and state on what the maximum height of a wave depends, and give an approximate rule for its calculation.
10. Give sketches of cross sections of various kinds of harbour piers, and the circumstances to which each is specially applicable.

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MARINE ENGINEERING.

HARBOUR, DOCK, SEA, AND RECLAMATION WORKS.

Time allowed, 3 hours.

11. State the comparative qualities of the under-mentioned materials for forming the *mass* of a bank for the reclamation of land from the sea, how either should be employed, and the best application of a combination of any of them.—Clay, Stone, Gravel.
12. Draw a section of such a bank or sea wall of the best construction, where the high-water level is 6 feet above that of the ground to be reclaimed, the range of tide being 10 feet, and the sea face much exposed. Give an estimate for the construction of 100 yards of such a wall according to the average prices in the district with which you are best acquainted, assuming that all the materials can be procured within two miles of the spot.
13. In what respects might an embankment, intended to prevent occasional floods from a fresh water river differ in construction from the above?
14. Make a hand-sketch of a self-acting tidal sluice of a section of four superficial feet to carry off land drainage. State at what level you would propose to place the outfall.
15. Describe the principal points to be attended to in considering the eligibility of any shore for reclamation, both as regards situation, climate, and soil, and state the relative values of the various soils which are likely to be met with in such works.
16. After a tract of land has been reclaimed from the sea, state (in connexion with the consideration of the soil assumed) the necessary steps to be taken in order to bring it into the most productive state of cultivation.
17. What is a catchwater drain? It may be debouched at one side, both sides, or through the middle of a reclamation; what would guide you in selecting its route?
18. State methods of closing reclamation embankments.

HYDRAULIC ENGINEERING.

WATER SUPPLY, SEWAGE, AND IRRIGATION.

Time allowed, 3 hours.

1. What are the causes of loss of head in water passing from one level to another? Give some formula for its calculation in the case of a closed conduit, explaining the meaning of the symbols used.
2. What is meant by *hydraulic mean depth?* Determine the dimensions of an uniform open channel of any cross section you choose, which will discharge 1,000 cubic feet of water per second, with a declivity of 5·28 feet in a mile. Would a closed conduit of similar cross section under similar circumstances require to be made larger or smaller?
3. In estimating the greatest working pressure of a water-pipe, should you choose the hydrostatic pressure due to the whole depth below top water of the reservoir, or the hydraulic pressure of the moving water, as the working pressure? State your reasons for your choice.

4. What should be the thickness of a cast-iron pipe 1 foot in diameter to resist a greatest working pressure of 1,200 feet of water? In what lengths are such pipes usually made? County Surveyorship (Ireland), November 1869.
5. In what manner and to what extent would you specify that these pipes should be tested? How should the joints of large pipes, subject to high pressure, be made?
6. In examining the site of a reservoir for water supply, what would guide you in estimating the *available* water from rainfall. How may this be affected by the physical nature of the country?
7. Describe an Artesian well, and what peculiarities in the subjacent strata are necessary for its proper working.
8. If a well be sunk in permeable but very dense strata, how may an increased supply be obtained without increasing the depth of the well?
9. A dam is to be formed across a ravine, the average declivity of which is 1 in 100, and average contraction above the proposed dam (at which point it is 500 feet wide) is 1 in 10, so as to form a reservoir capable of containing 10 million gallons. The top of the dam is to be 1 foot above the water level of the reservoir.

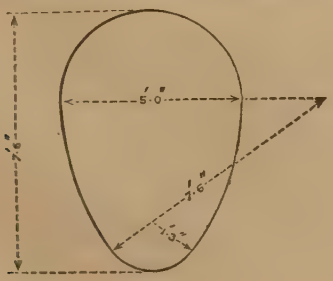
   Calculate the dimensions of the dam necessary, drawing a hand sketch, with figured dimensions, of its cross section. The sides of the ravine may *for simplicity* be supposed vertical, and the bottom of every cross section horizontal.
10. In constructing a large dam for a reservoir how would you deal with the following points, specifying what is to be attended to and what guarded against,—
    1. Material for construction of dam.
    2. Drawing off the supply, the tunnel.
    3. Impermeability of embankment.
    4. Storm waters.
    5. Springs in seat of embankment.
    6. Purification of the water.
11. What daily supply and what reserve storage would you consider necessary in the case of a town of 60,000 inhabitants?

HYDRAULIC ENGINEERING.

WATER SUPPLY, SEWAGE, AND IRRIGATION.

Time allowed, 3 hours.

12. Calculate the discharge from the egg-shaped brick sewer figured, when flowing two thirds full with a fall of 1 foot in 1,000. What should be the thickness of its ring of brickwork?



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13. What velocity is desirable (1) in main sewers; (2) in drain pipes?
14. State some of the arguments for and against the separation of rainfall from the drainage from houses, &c. in large towns. Do the same arguments equally apply to rural districts?
15. Draw a hand sketch of an air trap as applied to drains in houses: show also in a similar manner what you consider to be the best mode of forming the connexions of house drains with branch drains, and of the latter with main drains.
16. In laying stone-ware pipe drains how would you make the joints?
17. What precautions should be taken in laying sewage drain pipes in a loose damp soil?
18. State the principles and leading features, and advantages or defects of the following systems of utilizing sewage.
    (1) By subterranean irrigation.
    (2) By underground pipes and distribution by hose and jet.
    (3) By open carriers.
    (4) By submersion.
    Give any instance of the application of each.

COUNTY WORKS, INCLUDING ARCHITECTURE, ROADS, DRAINAGE, AND RIVER WORKS. I.

Time allowed, 3 hours.

1. Describe the chief characteristics of what is termed the "perpendicular" style of architecture, and name some of the best original examples.
2. Describe the ordinary method of constructing timber roofs for spans of 25 ft., 35 ft., and 50 ft. respectively. Give a cross section of a roof to span 33 ft.; all parts in tension, except the tiebeam, to be of iron. Mark the scantlings of all the timbers, &c., and give free-hand sketches of all the joints, straps, &c., as well as of the mode of laying the slates.
3. Illustrate by free-hand sketches the following descriptions of wooden floors, viz.,—single, double, and framed floors; and describe the different methods of laying down floor boards, stating the merits or defects of each method.
4. Make a vertical as well as a horizontal cross section through any ordinary external doorway, showing clearly every detail of construction. The frame to be fitted with a 4-panel double margin door; the bottom panels to be bead flush, and butt; the upper panels to be raised, with bolection mouldings, and square at back.
5. Give a description, illustrated by free-hand sketches, of the ordinary kinds of masonry employed in stone buildings, the purposes to which they are particularly adapted, and the points which are important in superintending the construction of each. Draw out a specification for the masonry which you would make use of in the walls of any public building, such as a court house.
6. Give a specification for the formation of a new road for moderately heavy traffic. Width of road 25 feet, and of footpaths 6 feet each. Enumerate the different kinds of stone suitable for macadamizing, pointing out their different properties and respective values as road metalling.

County Surveyorship (Ireland), November 1869.

7. What are the most approved methods of forming artificial foundations for roads? Give a description of the artificial foundation laid down on the Holyhead road by Telford.
8. In easing the gradients of roads in hilly countries by means of zigzags, what precautions ought to be taken in laying out the curved portions?
9. Describe and explain by means of free-hand sketches how you would construct a paved street for heavy traffic, specifying the nature and size of the materials to be used, and the mode of laying them.

COUNTY WORKS, INCLUDING ARCHITECTURE, ROADS, DRAINAGE, AND RIVER WORKS. II.

Time allowed, 3 hours.

10. A road crossing a range of hills zigzags down the steeper side of the range, how would you provide for the ordinary drainage and for the storm waters from the mountain?
11. A new road is to be made across a bog, how would you provide for keeping open the drainage communication between the lands on both sides?
12. State different cases of wet and difficult foundations which you know or have had to deal with, especially exemplifying the use of cofferdams (single and double), caissons, bearing piles, sheeting piles, and concrete.
13. State the precautions you would take to preserve from scour the bed of a mountain stream between the abutments of a bridge.
14. State fully the general considerations that would guide you in selecting the site of a bridge, and in determining the amount of obstruction that could safely be introduced into the waterway, in the shape of piers and abutments. On what grounds would you decide on the materials to be made use of in its construction, viz., wood, iron, or stone.
15. Make a sketch of the bridge (for ordinary traffic) which you would construct under the following conditions, showing the foundations, and describing the method of putting them in :—Breadth of stream to be bridged 60 feet, to be dealt with in two spans. The roadway to be level. The banks are about 8 feet above the water level, and consist on one side of a thick bed of stiff clay about 6 feet below the surface, which dips towards the opposite bank, where it underlies about 25 feet of sand and clay in alternate layers. The depth of water in mid-stream is 9 feet, and here the clay bed underlies about 6 feet of silt. State how you would estimate the maximum working load in calculating the strength of your bridge, and what proportion it ought to bear to its ultimate strength.

STRENGTH AND OTHER PROPERTIES OF MATERIALS, AND THE CALCULATIONS OF STRAINS. I.

Time allowed, 3 hours.

1. What are the characteristics of good timber? When ought it to be felled, and why?

County Surveyorship (Ireland), November 1869.

2. What kinds of timber would you specify to be used for the following purposes?
   - Rafters.
   - Joists.
   - Flooring.
   - Bearing piles in foundations.
   - Fender or wharf piles.
   - Lock-gates.
   - Timber road bridges.
   - Earth wagons.
3. Give some simple means of ascertaining the weathering properties of stone, more especially to resist the action of frost.
4. What are the relative merits of Roman and Portland cement? Which is the heavier, and which the less liable to deteriorate by exposure? Explain why.
5. The best Portland cement is required for a work; specify the conditions it ought to fulfil, and the tests to which you would subject it, and the mode of applying them.
6. Draw out a specification for a thick bed of concrete in foundations to carry a building on a damp site, describing the proportions of materials to be used, the mode of mixing and laying.
7. State the different kinds of bricks, and give a specification for "brickwork."
8. Limes from different stones and from chalk have different properties; state them, and also state on what the property of setting under water of an hydraulic lime depends.
9. May sea-sand or sea-water be used in mortar with (1) lime, (2) hydraulic lime, (3) Portland cement?
10. Explain the difference in the qualities and properties of wrought and cast iron, and state what general considerations would influence you in deciding which to employ. What tests would you introduce into a specification for either?
11. Define the following terms—Elasticity, limit of elasticity, modulus of elasticity.
12. Given a $\frac{1}{2}$-inch square bar of iron 2 feet long, what force would it take to stretch it $\frac{1}{4}$ of an inch, taking the modulus of elasticity of wrought iron at 29,000,000 lbs.

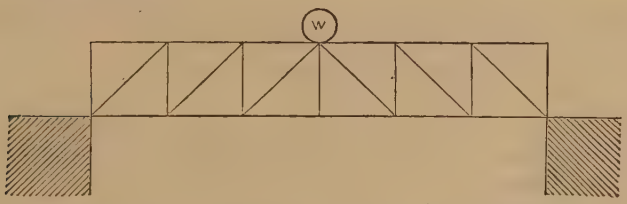
STRENGTH AND OTHER PROPERTIES OF MATERIALS, AND THE CALCULATIONS OF STRAINS. II.

Time allowed, 3 hours.

13. Define a beam of uniform strength, and a cross section of equal strength. Give figured sketch of cross section of a well proportioned cast iron beam.
14. Explain the difference between a live and dead load; and how would you take it into consideration in calculating the strength of a girder subjected to both a live and dead load.
15. If a beam supported at both ends can sustain a load of 5 cwts. at the centre, what load could it carry evenly distributed between the points of support.
16. A beam fixed at both ends (let Z = the distance in feet between the points of support) is loaded at the centre with a weight W, and at a point half way between the centre and one end with W^1, determine the shearing stress at the support nearer to W^1, x being the weight of the beam itself per foot run.

17. A beam is supported at both ends (let l = the distance between the points of support) and loaded with a weight W placed at a distance m from one of the points of support. Find the bending moment at any point C, at a distance $m + x$ from the same point of support, neglecting the weight of the beam itself. Also explain what further steps would be required were the weight of the beam taken into consideration. County Surveyorship (Ireland), November 1869.

18. Trace by arrows the directions of the stresses due to the weight W in this girder—

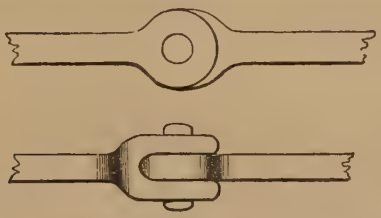


distinguishing the parts in compression by thick lines, and omitting such parts as are not affected by the load.

How are these stresses distributed throughout the top and bottom booms or flanges ?

Taking 45° as the angle of inclination between the struts and ties, determine the intensities of the different stresses in terms of W.

19. Two wrought iron tension bars are connected together thus :—



Show in how many ways the joint might fail, and state the conditions under which every part of the joint where failure has to be guarded against, would be equally strong with the bar.

20. In lattice girders carrying live loads it may happen that some of the lattice bars will be at one time in tension at another in compression. How can this occur, and what provision should be made to meet it ?

21. Give hand sketches of the various joints of plate iron, and explain how you would determine the number and spacing of the rivets at a joint. Give an illustration.

22. Sketch an iron roof 30 feet span, and mark dimensions. Assuming the load of slates, &c. to be 40 lbs. per square foot, calculate the tensions of the various parts which are in tension.

Engineer students in the Admiralty.

SPECIMENS OF EXAMINATION PAPERS SET IN OPEN COMPETITIONS FOR THE SITUATION OF ENGINEER STUDENT IN THE DEPARTMENT OF THE ADMIRALTY.

COPYING.

Copy as much of the following letter as you can in twenty minutes, taking care to copy neatly and correctly, and to write as well as you can.

N.B.—Good Handwriting is held to consist chiefly in the *clear formation of the letters of the alphabet.*

Time occupied, from to .

Poor Law Board, Whitehall, S.W.,
18 November 1868.

SIR,

I AM directed by the Poor Law Board to state that they have received through the Reverend Edward Tayler an application from Bridget Healey for the removal of Mary, Ellen, Patrick, Edward, and Timothy Ahearn from the schools belonging to the Guardians of the parish of St. Marylebone to the respective schools established at Walthamstow, North Hyde, and Brentwood, for the reception, maintenance and education of children of the Roman Catholic religion.

The Guardians are, doubtless, aware that the Board are empowered, by the 29 & 30 Vict. c. 113, to issue the order applied for ; but before doing so, they will be ready to consider any observations that the Guardians may wish to make on the application.

I am, &c.

Joseph Bedford, Esq., (Signed) *W. G. Lumley,*
Clerk to the Guardians of the Parish Assistant Secretary.
of St. Marylebone.

FOR DICTATION. (1.)

The whole view is shut in by a range of chalky hills, and over every part of the picture trees are so profusely scattered that it appears like a woodland scene, with glades and villages intermixed. The trees are of all kinds and all hues, chiefly the finely shaped elm, of the deepest and brightest green, the tips of whose high outer branches drop down with a crisp and garland-like richness, and the oak, whose stately form is splendidly adorned by the sunny colouring of the young leaves. Turning again up the hill, we find ourselves on that peculiar charm of English scenery a green common, divided by the road ; the right side fringed by hedge-rows and trees, with cottages and farmhouses irregularly placed, and terminated by a double avenue of noble oaks ; the left, prettier still, dappled by bright pools of water, and islands of cottages and cottage gardens, and sinking gradually down to corn fields and meadows, and an old farmhouse, with pointed roofs and clustered chimneys, looking out from its blooming orchard, and backed by woody hills. The common is itself the prettiest part of the prospect ; half covered with low furze, whose golden blossoms reflect intensely the last beams of the setting sun, and alive with cows and sheep, and two sets of cricketers.

FOR DICTATION. (2.)

Engineer students in the Admiralty.

Of all situations for a constant residence, that which appears to me most delightful is a little village far in the country; a small neighbourhood, not of fine mansions finely peopled, but of cottages and cottage-like houses, "tenements," as a friend of mine calls such ignoble and non-descript dwellings, with inhabitants whose faces are as familiar to us as the flowers in our garden; a little world of our own, close packed and insulated like ants in an ant-hill, or bees in a hive, or sheep in a fold, or nuns in a convent, or sailors in a ship; where we know every one, are known to every one, interested in every one, and authorized to hope that every one feels an interest in us. How pleasant it is to slide into these fine-hearted feelings from the kindly and unconscious influence of habit, and to learn to know and to love the people about us, with all their peculiarities, just as we learn to know and to love the nooks and turns of the shady lanes and sunny commons that we pass every day. Even in books I like a confined locality. Nothing is so tiresome as to be whirled half over Europe at the chariot wheels of a hero, to go to sleep at Vienna, and awaken at Madrid; it produces a real fatigue, a weariness of spirit.

ARITHMETIC.

Time allowed, $2\frac{1}{2}$ hours.

N.B.—*Be careful—*

(1) *to write your* name *at the* top *of each of your papers;*
(2) *to put the* number *to each question;*
(3) *to send up the* working *as well as the answers;*
(4) *to send up your work on* complete sheets *of paper, not on* scraps, *which are apt to be lost.*

---

1. Write out in words the number 9000735006.
2. Write down in figures Five million fifteen thousand and five.
3. Write down in figures Thirty thousand twelve hundred and eighty.

*4. Add together—

12489307
34567890
5729011
2357109
90463295
10639042
12839476
77690379
462183921
803672897

*5. Add together—

£	s.	d.
5632	4	2
4187	16	$6\frac{1}{2}$
437	15	$7\frac{1}{2}$
596	13	$1\frac{3}{4}$
5910	7	8
4728	6	11
59	12	$10\frac{3}{4}$
19403	13	8
27391	4	$6\frac{1}{2}$
40572	16	4

Place the answers here and send up copies of them on your other paper.

---

* Do not copy out these columns, but send up only the answers to them with your other work.

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6. From 824019*l.* 8*s.* $4\frac{1}{2}$*d.* take 38274*l.* 13*s.* $9\frac{3}{4}$*d.*
7. Multiply 940213 by 607004.
8. Multiply 7048*l.* 11*s.* $3\frac{1}{4}$*d.* by 92.
9. Divide 560127*l.* 17*s.* $9\frac{3}{4}$*d.* by 45.
10. Divide 226125587*l.* 3*s.* $5\frac{1}{2}$*d.* by 602.
11. Reduce 2 tons 7 cwt. 2 qrs. 11 lbs. to ounces.
12. If 17 yards of cloth cost 6*l.* 12*s.* $8\frac{1}{2}$*d.*, what will $110\frac{1}{2}$ yards cost?
13. Find (by Practice) the dividend on 2,870*l.* 10*s.* at 14*s.* 3*d.* in the pound.
14. Find the simple interest on 3,260*l.* for 4 years at $2\frac{1}{2}$ per cent. per annum.

N.B.—*The first fourteen questions should be answered before the others are attempted.*

15. What is the income corresponding to an income tax of 59*l.* 1*s.* 3*d.* at the rate of 5*d.* in the pound?
16. In 370652308 square inches how many acres, roods, perches, &c.?

Vulgar Fractions.

17. Add together $2\frac{1}{6}$, $5\frac{1}{8}$, $\frac{3}{20}$, and $1\frac{1}{40}$.
18. Subtract $7\frac{3}{16}$ from $9\frac{1}{20}$.
19. Multiply together $3\frac{7}{9}$, $\frac{5}{34}$, $1\frac{3}{16}$, $2\frac{4}{7}$, and $1\frac{1}{10}$.
20. Divide $6\frac{1}{17}$ by $\frac{5}{21}$.

Decimals.

21. Add together ·55 of 7*s.* 6*d.* and 5·32 of 17*s.* 3*d.*, and give the answer in pence and the decimal fractions of a penny.
22. Subtract 2·63 dwts. from 12·13 ozs. troy.
23. Multiply ·4302 by ·206.
24. Divide ·00256 by ·8192.
25. Divide 21·84 by ·168.
26. Express 13 minutes $7\frac{1}{2}$ seconds as the decimal of an hour.

Miscellaneous.

27. If 200 men in 12 days of 8 hours each can dig a trench 160 yards long 6 wide and 4 deep, in how many days of 10 hours will 90 men dig a trench 450 yards long 4 wide and 3 deep?
28. A person on leaving England exchanged his money for French money at the rate of 25 francs for a sovereign, and on arriving at Munich received 135 Bavarian gulden for 300 francs; what was his loss (1) in English, (2) in French money, supposing a gulden to be worth 1*s.* $8\frac{1}{2}$*d.*?
29. Find the number of yards in the side of a square park containing 109 acres 3 roods 8 perches and 9 square yards.
30. A postman has 10 miles to walk in 3 hours, and he walks the first 4 miles at the rate of $3\frac{3}{4}$ miles an hour, the next two at the rate of $3\frac{1}{3}$ miles an hour, and the next mile at the rate of 3 miles an hour; at what rate must he walk the rest in order to finish his journey at the proper time?

ADDITION.

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Add up as many of the columns as you can in the time allowed ($\frac{1}{2}$ an hour), placing the answers in the spaces below the columns.

You are not required to *copy out* the sums, but to write the answers in the *spaces* below each column.

N.B.—*You had better occupy the whole time allowed.*
No additional marks will be given for rapidity.

£	s.	d.	£	s.	d.	£	s.	d.
7245	6	2	8385	13	6	9035	2	10
8139	7	4	9416	9	8	4123	17	6
6904	7	3	1067	13	8	211	6	8
9065	13	8	207	4	6	94	3	4
8279	12	9	612	3	2	4321	18	9
4561	10	8	239	2	5	6409	12	8
485	2	2	2935	8	1	492	13	7
163	9	11	8019	3	8	56	4	10
752	15	3	1130	1	4	109	19	10
287	6	8	6408	13	10	9603	2	5
2307	4	2	2015	1	2	362	3	4
1528	3	6	9532	8	7	5976	2	5
691	13	9	631	7	7	1397	7	1
6127	9	10	6218	12	8	563	4	1
4201	6	8	1287	14	7	4287	9	11
232	1	11	3805	16	4	46	3	6
360	5	5	3276	5	9	210	14	8

Answer

£	s.	d.	£	s.	d.	£	s.	d.
134	6	6	8204	15	2	7319	2	5
2935	8	1	476	3	9	718	3	4
1316	9	8	9416	9	8	9416	9	8
3198	10	8	691	13	9	4614	3	3
1902	7	6	239	2	5	9763	2	1
9374	5	7	1067	13	8	211	6	8
752	15	3	1528	3	6	215	9	5
5736	10	7	734	5	1	6917	11	9
4321	18	9	967	2	4	7319	8	4
4917	10	8	109	19	10	9276	3	8
651	4	3	103	1	8	3276	5	9
360	5	5	8416	9	10	476	13	4
9	10	8	5618	7	6	752	15	3
9314	2	9	57	2	4	196	3	2
2376	0	9	1618	2	5	4201	6	8
346	5	5	436	2	3	976	2	5

Answer

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£	s.	d.	£	s.	d.	£	s.	d.
3748	2	9	4103	1	4	5176	13	7
9673	1	0	1211	6	7	232	1	11
163	9	11	2244	1	1	10	10	10
276	8	3	4321	18	9	25	4	8
1075	12	6	360	5	5	4201	6	8
163	9	11	123	8	4	8136	2	6
6904	7	3	6408	13	10	10	10	10
46	3	6	2935	8	1	10	2	2
3617	6	8	760	2	1	239	2	5
36	5	7	523	1	2	3257	8	11
3198	10	8	631	7	7	1397	7	1
6408	13	10	237	1	9	4466	1	9
1140	15	7	1414	12	4	563	4	1
1287	14	7	5788	2	2	5016	18	2
9171	8	4	3507	6	8	362	3	4
3685	10	11	56	4	10	976	2	5

Answer

£	s.	d.	£	s.	d.	£	s.	d.
492	5	11	163	9	11	6917	11	9
4016	3	9	203	7	1	8106	2	2
1200	1	3	100	0	1	2376	0	9
6271	18	3	4032	12	1	7682	19	4
9416	9	8	46	3	6	6904	7	3
1067	13	8	109	7	6	6890	12	4
5643	9	9	6409	12	8	4206	1	8
2768	12	4	9171	8	4	5188	17	3
5712	14	4	563	4	1	215	9	5
975	17	7	109	19	10	2935	8	1
1140	15	6	591	7	2	631	7	7
3276	5	9	691	13	9	8	2	4
1397	7	1	4069	13	2	107	5	9
360	5	5	301	2	1	259	19	10
10	10	10	362	3	4	56	4	10
239	2	5	1414	12	4	976	2	5

Answer

SUBJECTS FOR ENGLISH COMPOSITION.

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Time allowed, 1 hour.

1. The Massacre of Englishmen by Greek Brigands.

or

2. Good Manners.

or

3. Knowledge is power.

You are expected to write about a page.

N.B.—*One subject only to be attempted.*

N.B.—*In all your exercises attention should be paid to orthography, handwriting, punctuation, grammar, and correctness of expression.*

GRAMMAR.

Time allowed, 1¼ hours.

1. Give the past tense and the past participle of beat, hurt, bleed, fight, lay, run, choose, lose, bid, swell, stride, spit, dare, drive, get.
2. Name five nouns that have no singular and five that have no plural.
3. Give other words compounded of super, inter, extra, ferous, like snperfine, interpose, extraordinary, carboniferous, and state their meaning.
4. Parse fully the words printed in italics in the following passage :—

I am thy father's *spirit*,
Doomed for a certain term to walk the night,
And for the day *confined* to fast in fires,
Till the foul crimes done in my days of nature
Are burnt and purged away. *But* that I am forbid
To tell the secrets of my prison-house,
I could a *tale* unfold whose lightest word
Would harrow up thy soul, *freeze* thy young blood,
Make thy two eyes, like stars, *start* from their spheres,
Thy knotted and combined locks to *part*,
And each particular *hair* to stand on end
Like quills upon the fretful *porcupine*.

5. What (if anything) is wrong in the following phrases? Correct them where they require correction :—
   (*a.*) Sailing up the river, the whole town may be seen.
   (*b.*) Neither the house nor the garden were sold.
   (*c.*) Scarce had he entered the lane than he was attacked.
   (*d.*) Just to thy word, in all thy life sincere,
   Who know no wish but what the world may hear.
   (*e.*) I am afraid that I will not be able to help you.
   (*f.*) Let me awake the King of Morven, he that smiles in danger, he that is like the sun of heaven rising in a storm.
   (*g.*) I had several men died in my ship of yellow fever.
6. Write out in your own words the meaning of the following stanzas, addressed to a queen of the Britons :—

Rome, for empire far renowned,
Tramples on a thousand states :
Soon her pride shall kiss the ground—
Hark ! the Goth is at her gates.

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Other Romans shall arise,
Heedless of a soldier's name;
Sounds, not arms, shall win the prize,
Harmony the path to fame.

Then the progeny that springs
From the forests of our land,
Armed with thunder, clad with wings,
Shall a wider world command.

7. Analyse into subject and predicate, &c. the following sentences:—
   (*a.*) Rome, for empire far renowned,
   Tramples on a thousand states.
   (*b.*) Soon her pride shall kiss the ground.

N.B.—*In all your exercises attention should be paid to orthography, handwriting, punctuation, grammar, and correctness of expression.*

GEOGRAPHY.

Time allowed, 1¼ hours.

1. On the outline map of England trace the course of five large rivers, and show by stars, and names written near them, the position of the towns on their banks.
2. Draw a map of France, and put in it some of the rivers and principal towns.
3. Where are the following places, and what do you know about any of them: Washington, Delhi, Athens, Mecca, Homburg, Salamanca, Smyrna, Shanghae, Lubeck, and Natal?
4. Where are the rivers Colorado, Maranhao, Jumna; the mountains Chimborazo, Dhawalagiri, Ararat; the lakes Como, Nyanza, Ladoga; the islands Nova Zembla, Corfu, Negropont; the capes Horn, Ortegal, Matapan?
5. What does England import from Norway, Denmark, Africa?
6. If you were travelling for pleasure in Italy, what places should you visit, and what objects of interest would you expect to see?

N.B.—*In all your exercises attention should be paid to orthography, handwriting, punctuation, grammar, and correctness of expression.*

EUCLID. I.—VI.

Time allowed, 1½ hours.

1. Construct a triangle of which the sides shall be equal to three straight lines, but any two whatever of these must be greater than the third.
2. Describe a parallelogram that shall be equal to a given triangle, and have one of its angles equal to a given rectilineal angle.
3. If a straight line be bisected, and produced to any point; the rectangle contained by the whole line thus produced, and the part of it produced, together with the square of half the line bisected, is equal to the square of the straight line which is made up of the half and the part produced.

4. If from any point without a circle two straight lines be drawn, one of which cuts the circle, and the other touches it; the rectangle contained by the whole line which cuts the circle, and the part of it without the circle, shall be equal to the square of the line which touches it. Engineer students in the Admiralty.

5. Inscribe a circle in a given triangle.

6. In a right-angled triangle, if a perpendicular be drawn from the right angle to the base, the triangles on each side of it are similar to the whole triangle, and to one another.

7. Through any point within a circle draw (1) the greatest possible chord (2) the least possible chord.

ALGEBRA.

Time allowed, $1\frac{1}{2}$ hours.

1. Subtract $x^2(x-2)+x-2$ from $x^4+x(x-1)$, and divide the remainder by x^2-x+1.

2. Find the product of (1.) $(x+2)(2x-3)(4-x)$.

   (2.) $(a^m-b^m-c^m)(a^m+b^m+c^m)$.

3. Divide (1.) $\frac{2a^2}{a^3+x^3}$ by $\frac{a}{a+x}$.

   (2.) $\left\{\frac{a+2b}{a+b}+\frac{a}{b}\right\}$ by $\left\{\frac{a}{(a+b)}+\frac{a+b}{b}\right\}$.

4. Solve the equations—

   (α) $\frac{x-7}{x+7}-\frac{2x-15}{2x-6}+\frac{1}{x+7}=0$.

   (β) $\frac{x}{x+1}+\frac{x+1}{x}=\frac{13}{6}$.

   (γ) $\begin{cases} x^2=ax+by. \\ y^2=ay+bx. \end{cases}$

5. Find two numbers such that three times the greater exceeds twice the less by 10, and twice the greater together with three times the less is 24.

6. An express train and a goods train start from the ends of a line 120 miles long, and travelling with uniform speed they meet at the middle point of the line. The goods train started an hour earlier than the express train, and travels at two thirds of its speed. What is the speed of each train?

7. Given the first term, the common difference, and the number of terms of a series in arithmetic progression, find the sum. The first term of a series is a, and the sum of 6 terms is $5a$: find the series.

Engineer students in the Admiralty.

FRENCH.

Time allowed, $\frac{3}{4}$ hour.

Translate into English:—

Un garçon qui fait des vers, nommé La Fontaine, est un grand rêveur. Son père, qui est maître des eaux et forêts de Château-Thierry en Champagne, étant à Paris pour un procès, lui dit: "Tiens, va vite faire telle chose, cela presse." La Fontaine sort, et n'est pas plutôt hors du logis, qu'il oublie ce que son père lui avait dit. Il rencontre de ses camarades, qui lui ayant demandé s'il n'avait point d'affaires: "Non," leur dit-il, et alla à la comédie avec eux. Une autre fois, venant de Paris, il attacha à l'arçon de sa selle un gros sac de papiers importants. Le sac était mal attaché et tomba. Le courrier passe, ramasse le sac, et ayant trouvé La Fontaine, il lui demande s'il n'avait rien perdu. Ce garçon regarde de tous les côtés: "Non," se dit-il, "je n'ai rien perdu." "Voilà un sac que j'ai trouvé," lui dit l'autre. "Ah! c'est mon sac!" s'écrie La Fontaine; "il y a toute ma fortune." Il le porta entre ses bras jusqu'au gîte.

Saint Laurent, venant du pays des Saxons, rencontre un géant dans la Norvége. "Je te bâtirai une église," dit le géant, "mais à une "condition: quand j'aurai fini, tu me donneras tes deux yeux, à moins "que tu n'aies trouvé mon nom." Le saint accepte: aussitôt le géant se met à l'œuvre, entassant bloc sur bloc. En quelques jours, il a presque achevé une église formidable; Saint Laurent commence à craindre pour ses yeux. Au même instant, il entend une voix qui dit: "Dors tranquille, ma fille, tu auras les yeux du saint, que ton père "Finn t'a promis." Le saint, joyeux, court à l'église et s'écrie; "Tu "t'appelles Finn!" Voyant qu'il a perdu, le géant, furieux, descend de sa tour et veut renverser l'édifice, il entre sous la voûte pour l'emporter sur son dos; mais voici que tout à coup il est changé en pilier de pierre.

Boy Clerks in the Post Office.

SPECIMEN OF EXAMINATION PAPERS

[*Set in Examinations for Boy Clerkships in the Post Office.*]

[Under the Regulations printed at pp. 78, 79.]

FOR DICTATION (PRELIMINARY EXAMINATION).

In the early periods of history a broad line of distinction was drawn between the nobility and common freemen. Those of the higher order were distinguished by their noble birth, which they traced to a divine origin: and by their superior wealth, which enabled them to undertake numerous adventures, and increase their fame and riches by the booty which rewarded a successful expedition. They were distinguished also by a robust frame, a majestic bearing, skill in warlike exercise, and superior personal prowess.

ARITHMETIC (PRELIMINARY EXAMINATION)

Boy clerkships in the Post Office.

[*Set to Candidates for the Savings' Bank only.*]

Time allowed, ½ hour.

Add up the following columns of figures, putting the totals in the spaces provided.

£	s.	d.
1397	7	1
35	14	9
934	5	7
86	18	8
9	3	4
89	11	6
945	2	11
416	9	10
234	7	4
824	9	2

Answer

£	s.	d.
1105	2	1
65	12	2
199	11	8
72	0	11
283	2	10
57	13	3
166	15	7
92	18	5
691	13	9
295	3	6

£	s.	d.
1752	15	3
182	13	11
992	8	7
416	19	7
250	13	2
374	5	7
493	16	3
86	3	3
284	10	2
394	2	10

Answer

£	s.	d.
2356	1	2
491	18	11
1220	4	9
416	18	2
271	14	3
1014	8	8
752	11	9
37	9	1
276	5	9
920	3	8

ARITHMETIC AND GEOGRAPHY (PRELIMINARY EXAMINATION)

[*Set to Candidates for the Circulation Department only.*]

Time allowed, ½ hour.

Add up the following figures, and put the answers at the bottom :—

£	s.	d.
92	8	10
32	5	$2\frac{3}{4}$
63	0	$11\frac{1}{4}$
7	2	$5\frac{1}{2}$
72	15	$9\frac{1}{4}$
155	16	$7\frac{3}{4}$

Answer

£	s.	d.
36	5	$6\frac{1}{4}$
3	17	6
97	19	$9\frac{3}{4}$
154	12	$2\frac{1}{2}$
29	14	2
209	14	$2\frac{1}{4}$

Answer

Boy clerkships in the Post Office.

In what countries are the following towns? (Write your answer opposite to the question in each case.)

Bruges.
Lyons.
Naples.
Dresden.
Trincomalee.
Berne.
Shanghae.

State, as to each of the following places, whether it is in England, Ireland, Scotland, or Wales:

Douglas.
Dolgelly.
Inverary.
Tuam.
Rothsay.
Ilfracombe.

State, opposite to each of the following names, in what county the place is:—

Reading.
Hastings.
Canterbury.
Exeter.
Milford Haven.
Halifax.
Blackburn.

FOR DICTATION (IN THE COMPETITION).

King Richard III., soon after his coronation, set out with his queen and only son, then about eight years old, on a royal progress through the kingdom; and it is conjectured that the murder of the two young princes in the Tower was perpetrated during his absence from London on this occasion. When the court arrived at York, the king, to gain popularity amongst the people, who flocked there in great numbers to see him, entertained them with the ceremony of a coronation, and was crowned in the cathedral at that city a second time. But while he was thus making a parade of his royalty, a plot was already brewing to deprive him of it. The bishop of Ely had been committed to the custody of the duke of Buckingham. That shrewd prelate soon saw that though the duke had received great rewards from the king, he yet wanted more, and that resentment and discontent were rankling in his mind. The bishop accordingly found no difficulty in persuading the duke, notwithstanding he had so greatly contributed to the exalting of Richard, to join in a conspiracy formed for deposing him, and for placing Henry Tudor, Earl of Richmond, on the throne.

ARITHMETIC (IN THE COMPETITION).

Time allowed, 2 hours.

You are requested—

(1) *to write your name at the* top *of each of your papers;*
(2) *to put the* number *to each question;*
(3) *to send up your work on* complete sheets *of paper, not on* scraps, *which are apt to be lost.*

Boy clerkships in the Post Office.

1. Write down in figures Seventy million two hundred and three thousand and thirty.
2. Write down in words 507006301.
3. Subtract 397007862 from 728630720.
4. Subtract 3975*l.* 17*s.* $6\frac{1}{4}$*d.* from 5827*l.* 13*s.* 3*d.*

The working of the following is to be shown up:

5. Multiply 50347 by 5097.
6. Multiply 7643*l.* 13*s.* $6\frac{1}{2}$*d.* by 7.
7. Multiply 70386*l.* 11*s.* $7\frac{1}{2}$*d.* by 84.
8. Divide 329707786411 by 72.
9. Divide 15862984*l.* 8*s.* $0\frac{3}{4}$*d.* by 3.
10. Divide 709*l.* 2*s.* $4\frac{1}{4}$*d.* by 137.
11. Reduce 5 tons 4 cwt. 1 qr. 9 lbs. to ounces.
12. If 13 lbs. of tea cost 2*l.* 5*s.* 6*d.*, what will 2 cwt. 2 qrs. 14 lbs. cost?
13. Find (by Practice) the value of 5021 articles at 2*l.* 12*s.* $3\frac{1}{2}$*d.* each.
14. In 4703267 seconds how many weeks, days, &c.?
15. What is the income corresponding to an income tax of 18*l.* 4*s.* 2*d.* at the rate of 4*d.* in the £.
16. Find (by Practice) the dividend on 24,678*l.* 15*s.* at 7*s.* 3*d.* in the £.

ADDITION.

Add up as many of the columns as you can in the time allowed ($\frac{1}{2}$ an hour), placing the answers in the spaces below the columns.

You are not required to *copy out* the sums, but to write the answers in the *spaces* below each column.

N.B.—*You had better occupy the whole time allowed.*

No additional marks will be given for rapidity.

£	s.	d.	£	s.	d.	£	s.	d.
9416	9	8	8139	7	4	1130	1	4
6904	7	3	1067	13	8	211	6	8
9065	13	8	207	4	6	94	3	4
8279	12	9	612	3	2	4321	18	9
4561	10	8	239	2	5	6409	12	8
485	2	2	2935	8	1	215	9	5
163	9	11	8019	3	8	56	4	10
752	15	3	4123	17	6	109	19	10
287	6	8	6408	13	10	9603	2	5
1022	3	1	2015	1	2	362	3	4
1528	3	6	3925	4	11	5976	2	5
691	13	9	631	7	7	1397	7	1
6127	9	10	6218	12	8	563	4	1
4201	6	8	1287	14	7	4287	9	11
232	1	11	3805	16	4	46	3	6
360	5	5	3276	5	9	210	14	8
Answer								

Boy clerkships in the Post Office.

£	s.	d.	£	s.	d.	£	s.	d.
691	13	9	8204	15	2	8416	9	10
2935	8	1	476	3	9	718	3	4
1316	9	8	9416	9	8	9416	9	8
3198	10	8	134	6	6	4614	3	3
1902	7	6	239	2	5	9763	2	1
9374	5	7	1067	13	8	211	6	8
752	15	3	1528	3	6	215	9	5
5736	10	7	734	5	1	6917	11	9
4321	18	9	967	2	4	7319	8	4
4917	10	8	109	19	10	9276	3	8
651	4	3	103	1	8	3276	5	9
360	5	5	7319	2	5	476	13	4
9	10	8	5618	7	6	752	15	3
9314	2	9	57	2	4	196	3	2
2376	0	9	1618	2	5	4201	6	8
346	5	5	436	2	3	976	2	5

Answer

£	s.	d.	£	s.	d.	£	s.	d.
631	7	7	5176	13	7	4103	1	4
9673	1	0	1211	6	7	232	1	11
163	9	11	2244	1	1	10	10	10
276	8	3	4321	18	9	25	4	8
1075	12	6	360	5	5	4201	6	8
163	9	11	123	8	4	8136	2	6
6904	7	3	6408	13	10	10	10	10
46	3	6	2935	8	1	10	2	2
3617	6	8	760	2	1	239	2	5
36	5	7	523	1	2	3257	8	11
3198	10	8	3748	2	9	1397	7	1
6408	13	10	237	1	9	4466	1	9
1140	15	7	1414	12	4	563	4	1
1287	14	7	5788	2	2	5016	18	2
9171	8	4	3507	6	8	362	3	4
3685	10	11	56	4	10	976	2	5

Answer

Boy clerkships in the Post Office.

£	s.	d.	£	s.	d.	£	s.	d.
163	9	11	492	5	11	6917	11	9
4016	3	9	203	7	1	8106	2	2
1200	1	3	100	0	1	2376	0	9
6271	18	3	4032	12	1	7682	19	4
9416	9	8	46	3	6	6409	12	8
1067	13	8	109	7	6	6890	12	4
5643	9	9	6904	7	3	4206	1	8
2768	12	4	9171	8	4	5188	17	3
5712	14	4	563	4	1	215	9	5
975	17	7	109	19	10	2935	8	1
1140	15	6	591	7	2	631	7	7
3276	5	9	691	13	9	8	2	4
1397	7	1	4069	13	2	107	5	9
360	5	5	301	2	1	259	19	10
10	10	10	362	3	4	56	4	10
239	2	5	1414	12	4	976	2	5

Answer

GEOGRAPHY.

Time allowed, 1 hour.

1 State, as to each of the following places, whether it is in England, Ireland, Scotland, or Wales :—

Kilkenny.
Cardigan.
Coventry.
Dumbarton.
Tralee.
Wrexham.
Dungarvan.
Tewkesbury.

2. State, opposite to each of the following names, in what county the place is :—

Barnstaple.
Windsor.
Stroud.
Whitehaven.
Freshwater.
Peterborough.
Gravesend.
Great Grimsby.
Gateshead.
Chippenham.

3. In what countries are the following towns ? (Write your answer opposite to the question in each case.)

Buda.
Oporto.
Rio Janeiro.
Teheran.
Amiens.
Bergen.
Port Natal.
Zurich.
Strasbourg.
Ottawa.

Boy clerkships in the Post Office.

4. Give the names of four Scotch counties and of an important town in each county you mention.

1.	County	Town
2.	County	Town
3.	County	Town
4.	County	Town

5. Describe the course of the Rhone *or* Danube, mentioning the towns on the banks of the river you choose to describe. (Write your description on this sheet.)
6. Give the best description you can of France.
(Write your description here.)

Boy sorters and telegraph messengers in the Post Office.

SPECIMENS OF EXAMINATION PAPERS SET IN OPEN COMPETITIONS FOR THE SITUATIONS OF BOY NEWSPAPER SORTERS OR TELEGRAPH MESSENGERS IN THE SERVICE OF THE GENERAL POST OFFICE.

[Under the Regulations printed at pp. 80, 81.]

ADDITION.

Add up the following figures, putting the totals in the spaces provided. Do as many as you can in the time allowed, 15 minutes, taking care that each sum is *quite* right.

Add together—

6258	6872	8134
1423	9371	6052
8725	5877	1647
9742	8564	2448
3324	7587	2973
Answer	Answer	Answer
7238	8763	5720
5902	1342	6372
8543	9705	8162
4909	9093	9933
2287	9694	2053
Answer	Answer	Answer
7326	7562	8763
7689	5388	3985
8725	5787	1765
1978	6390	4533
7614	5197	2286
Answer	Answer	Answer

Boy sorters and telegraph messengers in the Post Office.

7238	9986	3217
9765	9053	1169
6542	9695	7842
1942	2114	8724
1895	8942	3478
Answer	Answer	Answer
3042	2986	4321
9275	8075	9096
8543	8195	2915
3847	7541	9358
5210	7964	8985
Answer	Answer	Answer

READING THE ADDRESSES OF LETTERS.

[A lithographed fac-simile of the addresses of twenty letters which had actually been sent through the Post Office was given to each candidate to copy.]

SPECIMENS OF PAPERS SET IN EXAMINATIONS FOR PROMOTION IN THE METROPOLITAN POLICE.

Promotion in Metropolitan Police.

1. Promotion from Constable to Serjeant.

Constable to serjeant.

DICTATION.

The obstacles which William might expect to encounter on English ground, though the least formidable of the obstacles which stood in the way of his design, were yet serious. He felt that it would be madness in him to cross the sea with a few British adventurers, and to trust to a general rising of the population. It was necessary, and it was pronounced necessary by all those who invited him over, that he should carry an army with him. Yet who could answer for the effect which the appearance of such an army might produce? The government was indeed justly odious. But would the English people be inclined to look with favour on a deliverer who was surrounded by foreign soldiers?

ARITHMETIC.

Time allowed, 30 minutes.

1. Add together—

£	s.	d.
365	2	8
82	13	4¼
89	6	11
74	6	9
734	13	2½
6	3	10½
284	7	9

2.—

£	s.	d.
580	3	9
9	13	4
768	3	4½
35	10	6¼
45	8	7
623	11	3¼
657	8	6

Place the answers here

Promotion in Metropolitan Police. Constable to serjeant.

3. Write in *figures* the following:—

(1.) Ninety thousand and forty; (2) twenty millions seven hundred and thirty.

Place the answers here.

4. Write in *words* the following:—

724, 9062, 206057, 880093040.

Place the answers here.

REPORT WRITING, &c.

Time allowed, ¾ hour.

Write a report of a dangerous but not fatal accident at the Review of Volunteers at Wimbledon.

Miscellaneous:

Name four Churches, four Post-offices, four Hotels, four Stations on the Metropolitan Railway, in London, describing where they are situated.

Serjeant to inspector.

2. Promotion from Serjeant to Inspector.

DICTATION.

It is certain that the improvement of our houses of public entertainment has by no means kept pace with the improvement of our roads and of our conveyances. Nor is this strange, for it is evident that the inns will be best where the means of moving are worst. The quicker the rate of travelling the less important is it that there should be numerous agreeable resting places for the traveller. A hundred and sixty years ago a person who came up to the capital from a remote county generally required twelve or fifteen meals and lodging for five or six nights by the way. If he were a great man he expected the meals and lodging to be comfortable, and even luxurious. At present we fly from York or Exeter to London by the light of a single winter's day. At present, therefore, a traveller seldom interrupts his journey merely for the sake of rest and refreshment. The consequence is that hundreds of excellent inns have fallen into utter decay. In a short time no good houses of that description will be found, except at places where strangers are likely to be detained by business or pleasure.

ARITHMETIC (ELEMENTARY).

Promotion in Metropolitan Police. Serjeant to inspector.

Time allowed, 2 hours.—Time occupied, from to

You are requested—

(1) *to write your name at the* top *of each of your papers;*
(2) *to put the* number *to each question;*
(3) *to send up your work on* complete sheets *of paper, not on* scraps, *which are apt to be lost.*

1. Add together—

£	s.	d.
978	16	$2\frac{1}{4}$
89	6	11
4970	13	$5\frac{1}{4}$
89	14	$2\frac{3}{4}$
696	3	$10\frac{1}{2}$
6287	8	4

2.—

£	s.	d.
377	16	$2\frac{1}{4}$
768	3	4
28	10	$4\frac{1}{2}$
6431	5	6
23	11	$3\frac{1}{2}$
966	2	1

Insert the answer

3.—

	£	s.	d.
From	896210	7	$8\frac{1}{2}$
Take	682743	10	$5\frac{3}{4}$
Insert the answer			

4.—

£	s.	d.
205654	8	3
36844	17	11

The working of the following is to be shown up:

5. Multiply 6*l.* 3*s.* $8\frac{1}{4}$*d.* by 6.
6. Multiply 19*l.* 4*s.* 9*d.* by 13.
7. Multiply 133*l.* 2*s.* $8\frac{1}{4}$*d.* by 82.
8. Multiply 686*l.* 2*s.* $8\frac{3}{4}$*d.* by 746.
9. Divide 193*l.* 2*s.* 3*d.* by 7.
10. Divide 118*l.* 5*s.* 4*d.* by 48.
11. Divide 761*l.* 12*s.* $10\frac{1}{2}$*d.* by 147.
12. Reduce 703*l.* 6*s.* $9\frac{3}{4}$*d.* to farthings.
13. Reduce 260*l.* 2*s.* 6*d.* to halfpence.
14. If 69 lbs. of salt cost 7*s.* $2\frac{1}{4}$*d.*, what will be the cost of 233 lbs.?
15. If a tradesman loses 2*d.* on an article which costs him 5*s.* 8*d.*, what does he lose if he lays out 65*l.* 3*s.* 4*d.*?

CHARGE SHEET.

Time allowed, 1 hour.

Supposing the following case to be brought before you, state whether you would receive or refuse the charge; giving your reasons.

Make the proper entry in either case on the charge sheet.

John Radford, 19 years of age, a labourer, residing at 37, Beach Road, Norwood, was brought to Lambeth Police Station at 5 P.M., 10th April, by Police Constable 750 A, charged, on the information of William Henderson, a market gardener, residing at 42, Long Street, Norwood, with having fired off a gun in a public thoroughfare. Police Constable 750 A stated that he heard a shot fired, and soon after saw the prisoner walking along the road with a gun over his shoulder. In a few minutes

Promotion in Metropolitan Police. Serjeant to inspector.

the complainant came up, and stated that he had seen the prisoner fire from the road at a small bird in the cemetery. Prisoner at first refused to give his name and address, and said that, finding the gun which he wished to sell was loaded, he had merely fired it off in the air.

ENGLISH COMPOSITION, &c.

Time allowed, 1½ hours.

A dangerous fire having broken out, write a report of the information you suppose to have been brought to you, and of the instructions you thereupon gave to a Police Sergeant.

Miscellaneous:

Name four Squares, four Inns of Court, four Prisons, four Assize Towns, describing the situation of each.

Name the streets through which a person would pass in going from Waterloo Bridge to Euston Square.

In answering the above, attention should be paid to orthography, handwriting, punctuation, grammar, and correctness of expression, as your proficiency in English Composition, and knowledge of punctuation, will be tested by your answers to these questions.

Appendix IV.

MILITARY ENTRANCE EXAMINATIONS.

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MILITARY ENTRANCE EXAMINATIONS.

1.—CORRESPONDENCE.

The Under Secretary of State for War, to the Secretary, Civil Service Commission.

SIR, War Office, 16th February 1870.

Proposed transfer of examinations to Civil Service Commissioners.

I AM directed by the Secretary of State for War, to transmit a copy of the first report of the Royal Commission on Military Education, and to request that you will call the attention of the Civil Service Commissioners to the recommendation at page 31, Appendix, that the entrance examinations for the Royal Military College at Sandhurst, and the Royal Military Academy at Woolwich, and also the examinations for admission into the army by Direct Commissions, being examinations into which no military subjects enter, and which are merely intended to test the general knowledge of the candidates, should be conducted under the superintendence of the Commissioners.

In accordance with this recommendation, Mr. Cardwell proposes to transfer for the future to the Commissioners the duties connected with these examinations so far as the educational test is concerned. All communications with regard to certificates of age and moral character will be dealt with in the Military Secretary's Department, and the necessary information sent to the Commissioners. No responsibility on these points, or for the Medical Examination will rest with them.

Trusting that the Commissioners will be prepared to undertake this duty, Mr. Cardwell has desired me to intimate that there will be no examinations this year for admission into the Royal Military College, and that the regulations prescribing the subjects, &c., have not yet been decided upon.

For the Royal Military Academy, there will be an examination next July, under the Regulations hitherto in force,* a copy of which is annexed. At the examination in December next the enclosed new regulations will come into force ;† and Mr. Cardwell will feel obliged by any observations the Commissioners may have to offer with regard to these new regulations, and especially as to clause 11, in which the mode of counting marks is prescribed. It has not yet been decided whether examinations will have to be held this year for entrance into the army by Direct Commissions, or what regulations shall be adopted.

The expense of conducting these examinations would in future devolve on the Commissioners, and when extra qualifying examinations are required, the cost may be greater than has hitherto been the case.

I am, &c.

* These are printed at p. 166.

† It was afterwards decided that the December examination should be held under the old regulations. See p. 132.

ENCLOSURE.

Regulations for Royal Military Academy.

GENERAL REGULATIONS for the GOVERNMENT of the ROYAL MILITARY ACADEMY at WOOLWICH.

Object of the Royal Military Academy.

1. The Royal Military Academy is maintained for the purpose of affording a preparatory education to candidates for the Royal Artillery and Royal Engineers. This education will be chiefly technical, and will in no obligatory subject be carried beyond the points useful to both corps alike.

Regulations for Admission, &c.

2. The number of cadets will vary according to the requirements of the service.

3. Admission will be determined by competition, unaccompanied by nomination. Notice will be given from time to time of the examinations for admission, which will be conducted under the superintendence of the Civil Service Commissioners, and will take place half-yearly at Christmas and Midsummer.

4. The limits of age for admission will be from 16 to 18.

5. Any gentleman who wishes to present himself at one of the competitive examinations must send in his name to the Military Secretary at the Horse Guards one month before the time of his examination, forwarding with his application to be examined the following papers :—

1st. An extract from the register of his baptism, or, in default of that, a declaration taken by one of his parents before a magistrate, giving his exact age. When the register of baptism does not contain the date of birth it should be accompanied by a memorandum signed by one of his parents or guardians, stating the day on which the candidate was born.

2nd. A certificate of good moral character, signed by a clergyman of the parish to which he belongs, and by the tutor or head of the school or college at which he has received his education for at least the two preceding years, or such other proof of good moral character as will be satisfactory to the Field-Marshal Commanding-in-Chief.

3rd. A statement of the subjects of examination in which he may desire to be examined.

A candidate who has been examined before, when he applies for leave to present himself again, will only be required to forward the list of subjects he selects, and a certificate from his tutor or the head of his schools, &c., for the interval between the two examinations.

6. The candidates will be inspected by military surgeons on the first day of the examination, in order that it may be ascertained that they are free from any bodily defects or ailments calculated to interfere with the performance of military duties. Extreme short sight or any serious defect of vision is regarded as a disqualification.

7. The number of trials allowed will not exceed three.

8. Every candidate will be required to pass a qualifying examination in the following subjects, whether he takes them up among those in which he wishes to compete or not, viz. :—

(1.) Mathematics, viz., arithmetic, including the use of common logarithms; algebra, including quadratic equations, the binomial theorem, arithmetical and geometrical progressions ; geometry as far as the sixth book of Euclid inclusive.

(2.) French or German.

(3.) English writing from dictation.

(4.) Geometrical drawing.

The qualification required in these subjects shall be :—In mathematics one half of the total number of marks allotted to the paper ; in French or German one-fourth. The candidate must satisfy the examiner that he can write English correctly from dictation ; and in geometrical drawing he must draw with accuracy, neatness, and to scale the several problems of Euclid, for which he must gain 100 marks out of a maximum of 300 nominally assigned to it.

The marks gained in any subject of the qualifying examination, with the exception of mathematics, will not be counted for competition except when the candidate takes up that subject as one of those in which he wishes to compete.

9. Those candidates only who pass the qualifying examination will be allowed to compete in the competitive examination, the subjects of which will be as follows :—

(1.) Mathematics, including the subjects of the qualifying examination, together with plane trigonometry, mechanics, hydrostatics, spherical trigonometry, and differential and integral calculus.

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* (2.) English composition (tested by the power of writing an essay, letter, or précis), and English literature, limited to specified authors.
or
(2*a*.) English composition as above, and English history, the examination in the latter subject being limited to certain fixed periods notified beforehand.

(3.) Latin.
(4.) Greek.
(5.) French; the examination to be partly colloquial.
(6.) German; the examination to be partly colloquial.
†(7.) Experimental sciences, viz., (*a*) chemistry and heat; or (*b*) electricity and magnetism.
(8.) Free-hand (figure and landscape) drawing.

10. Marks for these subjects will be given in the following proportions:—

(1.) Mathematics (including the qualifying examination)	1,500 allotted to the subjects of 4,000
(2.) English composition and literature	1,500
or	
(2*a*.) English composition and history	1,500
(3.) Latin	3,000
(4.) Greek	2,000
(5.) French	2,000
(6.) German	2,000
(7.) Experimental sciences	1,500
(8.) Free-hand drawing	1,000

Of these eight subjects a candidate will not be allowed to take up more than five for competition, or six if free-hand drawing be one of them.

11. A certain number, out of the total number of marks fixed for each subject, will be deducted from all marks gained by a candidate, the remainders being added to make up a total according to which the place of the candidate in the competitive list will be determined. In the case of a candidate who does not select mathematics as one of the subjects for competition the remainder of the marks gained in the qualifying examination therein, after deducting a like number out of the total marks allowed for mathematics, will be added to this total. The successful candidates will be taken from those who stand first on the list so formed.

Terms of Payment.

12. The payment to be contributed on behalf of a cadet will be as follows, and will be paid half-yearly in advance:—

	Annually. £
Queen's cadets (if any)	Nil.
For the son of an officer of the army or navy who has died in the service, and whose family is left in pecuniary distress, subject to the approval of the Secretary of State for War	20
For the son of an officer below the rank of colonel or regimental field officer in the army and captain or commander in the navy, or of an instructor at the Royal Military Academy or Royal Military College or Staff college	40
For the son of a colonel or regimental field officer in the army, or of captain or commander in the navy, or of a professor at the Royal Military Academy or Royal Military College or Staff College	60
For the son of a general officer who is not colonel of a regiment, or of a vice or rear admiral	70
For the son of an admiral, or of a general officer who is colonel of a regiment or in receipt of Indian colonel's allowances	80
For the son of a private gentleman	125

13. In determining the rate of payment—
a. A general officer on the half-pay of his last regimental commission will pay in accordance with such regimental rank.
b. Officers who have sold their commissions will be regarded as private gentlemen.

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* Subjects (2.) and (2*a*.) are alternative; a candidate will not be allowed to take up both.

† Subjects (*a*.) and (*b*.) are alternative; a candidate will not be allowed to take up both.

c. Officers on retired full or half-pay after 25 years' service, or officers of less than 25 years' service, if placed on half-pay by reduction of establishment, or on account of ill-health, will pay in accordance with their last substantive regimental rank. The cases of officers voluntarily retiring to half-pay before completing 25 years' service will be specially considered. Regulations for Royal Military Academy.

d. Officers of the departments of the army and navy, according to their relative rank, of the permanent staff of the militia, adjutants of the volunteer force, as well as Indian military and naval officers, will be treated on the same terms as military or naval officers.

e. The sons of deceased officers will be contributed for in accordance with the foregoing regulations in regard to the rank or classification of their fathers.

14. If a cadet be absent a whole term in consequence of sickness or rustication, a payment of 10*l.* will be required for the privilege of his name being kept on the rolls of the establishment, and for a vacancy being guaranteed at the commencement of the next term.

In the case of a cadet who is an orphan, whose annual contribution is only 20*l.*, the amount to be paid when absence extends over a whole term is to be determined by the Secretary of State for War.

If a cadet be absent from sickness during a portion of the term, his pay will continue to be issued and credited to his account ; but no refund of the contribution will be permitted.

If rusticated or removed during a term, the daily pay will cease from the date on which the cadet is sent away, and the contribution made for the half-year will be forfeited.

15. The pay of a cadet is 3*s.* a-day ; it is issued to cover the expense of regimental clothing, messing, washing, and other contingencies. All other necessary expenses of this nature, as well as weekly pocket money, postage of letters, bootmaker's and tailor's bills for repairs, &c., which cannot be covered by his pay, will be chargeable to his parent or guardian in addition to the regulated contribution.

16. Each cadet on first joining will be required to pay, in addition to the regulated contribution, a sum of 25*l.* to cover the expense of uniform, books, &c., and to bring with him the articles of clothing of which he will receive notice, and which must afterwards be kept up at his own expense. He will also be required to pay the regulated contribution in advance, for each half-year of the time during which he remains under instruction ; and a deposit of 5*l.* on account, for contingent expenses, which latter sum he will be required to make up on returning to the Royal Military Academy after each vacation, to cover any expense that may be incurred on his account during the ensuing half-year.

Government and Organisation.

17. The Field-Marshal Commanding-in-Chief will be the President of the Royal Military Academy.

18. An independent inspection by a board of visitors, appointed by the Secretary of State for War, and reporting to him, will be made once a year. Such visitors will not be a permanent body, but will not all be changed at the same time. The report of this board will be presented to Parliament.

19. The Academy will be under the control of a Governor, a military man, selected with special reference to his qualifications for superintending both instruction and discipline, and appointed by and responsible to the Secretary of State for War through the Field-Marshal Commanding-in-Chief.

20. The Governor by virtue of his office will have local rank superior to that of any of the officers employed under him.

21. The appointment will be for seven years with power of re-appointment, but will in all cases terminate after 14 years, or at the age of 60.

22. The Governor, with the approval of the Secretary of State for War, will have the power of appointing and removing the professors and instructors.

23. The organisation will be on a military basis.

24. The Governor will be solely responsible for discipline and for the general superintendence of the studies.

25. He will be assisted in the arrangement of the studies by an academy board, composed of the professors or senior instructors of the different branches. The head of each branch will have the general power of supervision and inspection over the studies in his department, with the duty of reporting on them to the Governor.

26. The Governor will from time to time assemble and confer with all the professors and instructors of each separate branch on matters relating to it.

27. The Governor will be assisted by a staff officer, not under the rank of captain, who will be secretary and treasurer, and have charge of the records, correspondence, and accounts of the establishment, and make all local payments connected therewith

Regulations for Royal Military Academy.

and receive the contributions for the cadets. This appointment will be for seven years, with power of re-appointment.

28. The cadets will form one company under a captain, assisted by four lieutenants, charged with the discipline out of studies and the drill, one of whom will be adjutant and quartermaster.

29. The professors and instructors may be either military men or civilians.

30. The professors and instructors will have certain limited powers of punishment, within and without the halls of study, at the discretion of the Governor, to whom they will report all punishments which they may inflict.

31. The chaplain will be specially appointed by the Secretary of State, and will give instruction in classics.

32. The professors and instructors will be appointed for six years, with the power of re-appointment. Their tenure of office will not continue after the age of 55, unless an extension be specially recommended by the Governor and approved of by the Secretary of State.

33. No professor or instructor shall give private instruction to a cadet, either during the vacation or at any other time; or be allowed to prepare candidates for admission to the Academy.

34. The Governor will have the absolute power of rustication and removal, and also of sentencing a cadet for misconduct to lose places in the list of successful candidates for commissions; when expulsion is necessary, the case will be referred to the Secretary of State through the Field-Marshal Commanding-in-Chief.

35. The name of any cadet expelled for misconduct will be recorded in the office of the Field-Marshal Commanding-in-Chief, and will be made known to the First Lord of the Admiralty, and to the Secretary of State for India, in order to prevent his being admitted into Her Majesty's Naval, Military, or Indian Service.

36. A sword will be given at each final examination as a special reward for excellence in conduct.

37. The Governor will cause registers to be kept of all serious punishments awarded, and of the offences which have caused them.

38. He will inspect accounts of every description connected with the Academy, and certify those which require it.

Course of Instruction.

39. The length of the course of instruction will be two years and a half.

40. If any cadet fail to come up to the required standard at two examinations, or be found unable to qualify in his studies for a commission within three years, to be counted from the commencement of the term in which he first joins, or to acquire a sufficient proficiency in military exercises he will be removed. No extension of the above period of three years will be granted on account of absence from any cause excepting illness. Cases of protracted absence on account of illness will be specially referred for decision to the Secretary of State for War through the Field-Marshal Commanding-in-Chief.

41. The following subjects will form the course of obligatory studies:—

(1.) Mathematics, including a thorough knowledge of plane trigonometry (the above to form the first year's course); practical mechanics, with the application of mathematics to machinery.
(2.) Fortification, field and permanent; such a course as is suitable to cadets qualifying for the Artillery, and the requisite amount of geometrical drawing.
(3.) Artillery; such a course as is suitable to Cadets qualifying for the Engineers.
(4.) Military drawing, with field sketching and reconnaissance.
(5.) Military history and geography.
(6.) French or German, at the Student's choice.
(7.) Elementary chemistry and physics.
(8.) Drills and exercises.

42. In addition to the obligatory course, every Cadet will be allowed, at his option, to take up certain voluntary subjects, viz.:—

(1.) Higher mathematics.
(2.) Higher portions of fortification.
(3.) A second modern language, French or German.
(4.) Free-hand, figure, and landscape drawing.
(5.) Higher chemistry.
(6.) Latin
(7.) Greek } Instructions in these subjects to be given by the Chaplain.

43. A Cadet will not be allowed to take up more than three of these voluntary subjects, or four with free-hand drawing, nor will he be permitted to change the subjects he has selected until after his first examination in them.

44. Marks will be assigned to the obligatory subjects of instruction in the following proportions :— Regulations for Royal Military Academy.

Mathematics and Mechanics		7
Fortification		7
Artillery		5
Military Drawing and Reconnaissance		6
Military History, &c.		3
One Modern Language, French or German		2
Elementary Chemistry and Physics		2
Drills and Exercises	Manual, Platoon and Company Drill	½
	Gymnastics	½
	Riding and Sword Exercises	½
	Artillery	2
		3½

45. The voluntary subjects shall be valued as follows :—

Higher Mathematics	5
Higher Fortification	3
Latin	2
Greek	2
One second Foreign Language, French or German	2
Freehand, Figure, and Landscape Drawing	2
Higher Chemistry	2

46. No obligatory subject shall gain a cadet any marks unless he obtain a minimum of one-half marks in it.

47. No cadet will be ensured a commission unless he qualify by obtaining at least one-half marks in the obligatory course in mathematics and mechanics, fortification and artillery, and one-half of the total aggregate of the marks allotted to all the obligatory subjects.

48. No voluntary subject shall gain a cadet any marks unless he obtain a minimum of at least one-third of the marks assigned to that portion of it in which he is examined. The marks gained in the voluntary subjects will be added to those obtained in the obligatory subjects to make a second total, according to which cadets shall be finally placed.

49. The periodical examinations will be entirely conducted by examiners independent of the Academy, the whole of the marks, except those reserved for note books and drawing being allotted according to their results.

Staff of the Establishment.

50. The following will be the Staff of the establishment :—

Governor		1
Secretary and Treasurer		1
Captain Commanding Company		1
Lieutenants		3
Adjutant and Quartermaster		1
Medical Officer		1
Chaplain		1
Professor and Instructors of	Mathematics and Mechanics	4
„ „	Fortification and Geometrical Drawing	4
„ „	Artillery	2
„ „	Military Drawing, &c.	4
„ „	Military History and Geography	1
„ „	French and German	2
„ „	Figure and Landscape Drawing	1
„ „	Chemistry	1

51. The pay and allowances of the Officers are regulated by Her Majesty's Warrant of the 8th February 1870, and is as follows :—

Governor, 1,500*l.* yearly, inclusive of all allowances except quarters, and in addition to his unattached pay as a General Officer, or his pay as Colonel Commandant of Royal Artillery or Royal Engineers, in the event of his holding such rank.

Secretary and Treasurer not of lower rank than Captain, 400*l.* yearly, inclusive of all allowances except quarters, and in addition to regimental pay.

Captain of Company, 12*s.* daily, and regimental pay, forage allowance for one horse, quarters, fuel and light, and two soldier servants.

Lieutenants, 4*s.* each daily, and regimental pay, quarters, fuel and light, and one soldier servant.

Adjutant and Quartermaster, 5*s.* daily, and regimental pay as Lieutenant, quarters, fuel and light, forage allowance for one horse, and two soldier servants.

Surgeon, according to his rank in the Department.

Chaplain and Classical Instructor, 400*l.* yearly, and quarters, fuel and light.

Regulations for Royal Military Academy.

Professor of Mathematics, if a civilian, 550*l.* to 700*l.* yearly, by a triennial increase of 50*l.*
Professor of Mathematics, if an officer, 550*l.* yearly, without increase.
Instructors of Mathematics, if civilians, 350*l.* to 500*l.* each yearly, by a triennial increase of 50*l.*
Instructors of Mathematics, if officers, 450*l.* yearly, without increase.
Professor of Fortification, 550*l.* yearly.
Instructors of Fortification and Geometrical Drawing, 450*l.* each yearly.
Professor of Artillery, 550*l.* yearly.
Instructors of Artillery, 450*l.* yearly.
Professors of Military Drawing, 550*l.* yearly.
Instructors of Military Drawing, 450*l.* each yearly.
Professor of Military History, 500*l.* yearly.
Professor of French, 350*l.* yearly.
Professor of German, 350*l.* yearly.
Professor of Landscape Drawing, 350*l.* yearly.
Professor of Chemistry, 400*l.* yearly.

52. The Royal Warrant also prescribes that the above scale of pay and allowances shall include all remuneration of every kind except any additional pay, beyond his ordinary regimental pay, to which an officer may be entitled by brevet rank, or as a reward for distinguished service in the field, and no person hereafter to be appointed to any of the above appointments will be entitled to pension or superannuation allowance for services in such appointment.

53. The appointments of Military Professors and Instructors are open to officers of all ranks.

54. No person whatever belonging to the Royal Military Academy is to receive a present from any cadet, or from the relations or friends of any cadet.

EDWARD LUGARD.

War Office,
15th February 1870.*

ENCLOSURE.

Extracts from Report of Royal Commissioners.

EXTRACTS from the REPORT of the ROYAL COMMISSIONERS on the PRESENT STATE of MILITARY EDUCATION.

As a good method of examination is almost the only means by which the presence of the foregoing qualifications can be ascertained, it is evident that the efficiency of any educational system can only be secured by rendering these educational tests stringent and genuine. It is also of great importance that the standard of acquirements insisted upon should be permanent, uniform, and unaffected by the caprice or fancies of individual examiners.

We would therefore recommend that all examinations of a military character should be placed under the control of one responsible head. At present the functions of superintending the examinations, and of directing the whole education of the army, are discharged by the Council of Military Education. It is doubtful, however, whether the responsibilities now distributed amongst five individuals might not with advantage be concentrated in the hands of a single person, as Director-General of Military Education, assisted by such a staff as circumstances might require. Whatever arrangement may be adopted in regard to the examinations, especial provision should be made for a periodical change in a certain proportion of the examining body. By the annual accession of a new member to colleagues who have been for some years in office, the traditional uniformity of system would be preserved, while a certain degree of freshness would be communicated to the examination papers. This last point is of great importance, as it is well known that the efficiency of many examinations is much impaired by the skill with which a class of persons, popularly known as "crammers," divine the style of papers likely to be set by examiners whose fertility of interrogation has been exhausted.

Although recommending the above organization to be applied to all examinations relating to military subjects, we see no reason why examinations of an ordinary nature

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* The following note was appended to the regulations as finally settled:—

N.B.—These regulations will come into force in the Midsummer examination, 1871, as regards the subjects of examination for admission. The age of candidates for admission to be 16 to 19 years until the examination in the winter of 1871, when it will be 16 to 18½ years. At subsequent examinations the limit of age in these regulations will be enforced.

Extracts from Report of Royal Commissioners.

should not be conducted by the Civil Service Commissioners. We would therefore suggest that the examinations for admission to Sandhurst and to Woolwich, as well as those for direct commissions, all of which will be confined to non-professional subjects, should in future be transferred to that department. By this arrangement the duties of the military examiners would be much lightened.

We do not consider it advisable that Public Schools should be empowered to grant certificates entitling their holders to admission into the army; but a student who has passed responsions at Oxford, or a corresponding examination at other Universities, should be held qualified to receive a direct commission, provided always he be within the prescribed limits of age.

It may here be convenient to point out that we recommend an important change in the system of assigning marks to subjects taken up for competition in the examinations for admission to the various educational establishments. In this we follow a practice now adopted in the Indian Civil Service examinations, by which the minimum of marks fixed in each subject is deducted from the total number gained in it. The object of this rule is to discourage the practice of taking up extra subjects imperfectly known, in the hopes of gaining a very few marks more than the required minimum, and thus swelling the ultimate total. Mathematics have of late been excepted from this rule in the Indian Civil Service examinations, on the special ground that candidates need some encouragement to select a subject involving so much labour; but as we have required a certain moderate amount of mathematical knowledge as a qualification, there is no reason for putting a further premium upon it in the military examinations. We do not propose to remove the restriction which now exists limiting the total number of subjects taken up, since no candidate can be expected to be thoroughly prepared in more than a few. By these arrangements, combined with others to which we shall refer, we hope to place some check upon the present system of "cramming."

As there is no competition, strictly speaking, at the direct commission examinations, the temptation to "cram" for them is less powerful. In their case, therefore, we have not applied this stringent rule. Its extension to all examinations appears, however, to be a matter for future consideration, if it be found that the candidates still continue to come up trusting to subjects which have been hastily forced into them, instead of having been systematically taught.

Before leaving the general subject of examinations, we wish to record our opinion, that a purely scholastic examination is not the only test by which the future officer's competence should be investigated. However valuable intellectual ability may be, his possession of other qualities, both moral and physical, is equally important. Although it may be very difficult to devise any scheme for testing the presence of these latter qualities in applicants for direct commissions, there does not seem to be any reason why the development of them should not be encouraged at the various military educational establishments with which we are dealing, while it is very obvious that they should be demanded from every officer who is a candidate for staff employment.

The methods we recommend for carrying these views into effect will be best described in those paragraphs of our report which more especially refer to Sandhurst, Woolwich, and the Staff College.

The Registrar, Civil Service Commission, to the Under Secretary of State for War.

Sir, 19th February 1870.

I am directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 16th instant, transmitting a copy of the report of the Royal Commission on Military Education, stating that, in accordance with its recommendations, Mr. Cardwell proposes to transfer for the future to the Civil Service Commissioners the duties, so far as the educational test is concerned, of the examinations for entrance to the Royal Military College at Sandhurst, and the Royal Military Academy at Woolwich, and of those for admission to the army by direct commissions, and intimating Mr. Cardwell's wish to receive any observations which the Commissioners may have to offer with respect to the new regulations which it is proposed to introduce at the examination of December next, for the Royal Military Academy at Woolwich.

In reply, I am desired by the Civil Service Commissioners to express their readiness to undertake the conduct of these examinations to the extent proposed in your letter, and to state that they will at once apply to the Treasury for the requisite sanction to such an increase in the estimate for this Department as will enable them to defray the additional expense which will thus be incurred.

New regulations for Royal Military Academy.

With respect to the new regulations for the Royal Military Academy, the Commissioners, availing themselves of the opportunity which Mr. Cardwell has been so good as to afford them, venture to submit a few observations on some clauses of the circular.

Referring, in the first place to the clause (11) to which their attention is more especially invited, I am to state that the deduction of a fixed number of marks from all the marks gained by a candidate has been found in the examinations for the Civil Service of India, to be a highly successful expedient for discouraging diffusive and shallow study. The Commissioners cannot doubt, therefore, that the provision upon this point contained in the clause is judiciously framed to secure this important end. They observe that the number of marks to be deducted is not stated in the clause; and they think it would be undesirable to include the minimum amongst the permanent regulations. They may, however, mention that the number deducted in the Indian Civil Service Examinations is 125, and they incline to the opinion that this number would, under all the circumstances, be appropriate in these examinations also.

Proceeding to the other clauses and passing over the first seven, the Commissioners would suggest, under clause 8, subject 3, that, in addition to writing from dictation, some knowledge of English Grammar might with advantage be required as a qualification in which it is reasonable to expect that no English gentleman can be deficient. In this case the language of the succeeding paragraph on this point might be: "The candidate must satisfy the Commissioners that he can write "English correctly from dictation, and that he possesses an adequate "knowledge of English Grammar."

The substitution of the word "Commissioners" for that of "examiner," is proposed in order to make the regulations accord with the uniform practice of the Commissioners, in the examinations which they conduct, of reserving to themselves the ultimate decision as to the standard of competence.

Under the same clause (8), it seems desirable to point out that, while a maximum of marks is referred to, none is actually prescribed except for geometrical drawing. In clause 10, indeed, it is implied that 1,500 is to be the maximum for mathematics in the qualifying examination, but nothing is said as to French or German. As, however, the marks gained in these two subjects are, in certain cases, to be counted for competition, it appears advisable to fix a maximum for each in the Regulations, and the Commissioners would suggest that, adopting the same proportion as that which has been taken in the case of mathematics, the number might be 750.

The only observation which occurs to the Commissioners upon clause 9, is with reference to the examination in English History, which it is proposed to limit to certain fixed periods to be notified beforehand.

The Commissioners are not without fears that the effect of this limitation may be to induce candidates to confine their reading entirely to the specified period, and that the examination will therefore afford no test of any, even the slightest, general acquaintance with the subject.

It appears to them that this objection might, without any disadvantage, be met by extending the examination so as to include the outlines of English History generally, as well as the history of the selected period. New regulations for Royal Military Academy.

Passing on to clause 10, the Commissioners are led by a natural comparison of this scheme with that established for the Civil Service of India, to notice the inferior position here assigned to English Composition, Literature, and History, relatively to the other subjects. In the scheme for the Indian Service—designed like this to test the general culture of the candidates,—the number of marks allotted to English is 1,500, as compared with 750 allotted to Greek, 750 to Latin, and 375 to each of the Modern Foreign languages; and in the Report of the Committee of 1854, upon which the scheme was founded, Lord Macaulay and the other eminent persons by whose advice this distribution of marks was made, enumerating the subjects to be included, say "foremost among these subjects we place our own language and "literature."

Considering not only the intrinsic value of the subject, but also the continually increasing extent to which the study of it has, since the date of this Report, been introduced into the ordinary curriculum of a liberal education, the Commissioners venture to express their opinion that the number of marks assigned for English should at least be equal to that allotted for French and German (viz., 2,000), and that a maximum of 2,500 would not be larger than the relative importance of the subject deserves. It is obvious that an inequality so considerable as that proposed in the scheme as it stands must operate to the practical exclusion of English from the subjects available for competition; a result which it could not be the design of the Royal Commissioners to produce.

In conclusion, I am to add, that having offered these observations for such consideration as Mr. Cardwell may think them to deserve, the Civil Service Commissioners will be happy to carry out, to the best of their ability, whatever arrangements he may deem to be the most advisable.

I have, &c.

The Under Secretary of State, War Office, to the Secretary, Civil Service Commission.

SIR, War Office, 4th March 1870.

I AM directed by the Secretary of State for War to acknowledge the receipt of your letter of the 19th ultimo, and to express his thanks for the readiness with which the Civil Service Commissioners have undertaken to conduct the examinations for entrance into the Royal Military Academy and Royal Military College, and for direct commissions.

Mr. Cardwell is also much obliged to the Civil Service Commissioners for their observations and suggestions upon the scheme of examination for entrance into the Royal Military Academy. He agrees with the Civil Service Commissioners that 125 marks should for the present be fixed as the number to be deducted under clause 11. of the regulations from the marks gained by a candidate in each of the subjects which he takes up, and that the number of marks to be allotted to French and German in the qualifying examination should be fixed at 750.

The term "examiner" used in clause 8 of these regulations, will be altered on reprint into "Commissioners" as requested.

The Civil Service Commissioners are probably aware that the scheme of examination for admission into the Royal Military Academy was

New regulations for Royal Military Academy.

framed in accordance with the recommendations of the Royal Commission on Military Education, who devoted much time and attention to the subject. Mr. Cardwell has communicated with that Commission with reference to the remaining suggestions of the Civil Service Commissioners, and has been informed that they adhere to their original recommendations.

Under these circumstances Mr. Cardwell with every deference to the judgment of the Civil Service Commissioners, and without expressing an opinion upon the points at issue, desires to adhere to the scheme as proposed by the Royal Commission.

He will, however, be glad to receive and consider any suggestions which may occur to the Civil Service Commissioners after the scheme has been tried, and the practical results ascertained.

I am to request that the Commissioners will now consider and fix upon the authors, and the period of history for the Christmas examination for admission into the Academy, in order that public notice of the same may be given.

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State, War Office.

SIR, 9th March 1870.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 4th instant, continuing the correspondence relative to the examinations for entrance into the Royal Military Academy, the Royal Military College, and for direct commissions.

And in reply, I am to acquaint you with reference to the last paragraph of your letter, that after due consideration the Commissioners have selected the following authors and period of history for the Christmas examination for admission into the Academy, viz.:

Authors.

Chaucer.—Prologue to the Canterbury Tales.
Shakespeare.—The Historical Plays.
Milton.—Comus, Lycidas, and Paradise Lost, Book I.
Pope's Epistles.
Bacon's Essays.
Addison's Papers in the Spectator.
Burke on the Sublime and Beautiful.
Scott.—Guy Mannering, Quentin Durward, and the Antiquary.
Period of History.—The 16th century.

I am only to add that when the scheme as now fixed for the Royal Military Academy has been tried, and the practical results thereof ascertained, the Commissioners will be prepared, in compliance with Mr. Secretary Cardwell's wish as intimated to them by your letter, to offer such suggestions as may occur to them concerning its operation.

I have, &c.

The Under Secretary of State for War, to the Secretary, Civil Service Commission.

SIR, 11th March 1870.

I AM directed by Mr. Secretary Cardwell to acquaint you for the information of the Civil Service Commissioners that on further con-

sideration of the subject he has decided that the examination for admission to the Royal Military Academy in the winter of this year shall be in accordance with the old regulations transmitted in the letter from this office of the 16th ultimo.* New regulations for Royal Military Academy.

The new regulations should come into force at the examination in the Midsummer of 1871. I am to request that the Civil Service Commissioners will be good enough to conduct these examinations accordingly.

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State for War.

SIR, 12th March 1870.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 11th instant relative to the Christmas examination of candidates for admission to the Royal Military Academy.

And in reply, I am to acquaint you that in compliance with Mr. Secretary Cardwell's wish the Commissioners will conduct the examination in question in accordance with the old regulations as communicated to this office by your letter of the 16th ultimo. The Commissioners will also understand that the new regulations are to come into force at the examination to be held at Midsummer 1871.

I have, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State, War Office.

SIR, 16th March 1870.

WITH reference to recent correspondence respecting the examinations for admission to the army, and more especially to the Royal Military Academy at Woolwich.

I am directed by the Civil Service Commissioners to request that they may be informed whether they are right in understanding it to be the wish of Mr. Secretary Cardwell, that in the conduct of these examinations they should exercise their own discretion on all points which are not determined by the regulations; as for instance, the number of papers to be set and the number of examiners to be employed.

I have, &c.

The Under Secretary of State, War Office, to the Secretary, Civil Service Commission.

SIR, War Office, 18th March 1870.

I AM directed by the Secretary of State for War to acknowledge the receipt of your letter of the 16th instant, and to acquaint you in reply that he quite wishes that in the examinations for entrance to Woolwich and Sandhurst, and for direct commissions, the Civil Service Commissioners should exercise their own discretion on all points which are not determined by regulation.

I am, &c.

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* These are printed at p. 166.

Examination for direct commission, May 1870.

The Under Secretary of State, War Office, to the Secretary, Civil Service Commission.

SIR, 29th March 1870.

WITH reference to your letter of the 19th ultimo, in which the Civil Service Commissioners express their willingness to undertake the examinations for entrance to the Royal Military College and Academy, and for admission to the army by direct commission, I am directed by Mr. Secretary Cardwell to request that the Commissioners will inform him whether they will be prepared to examine 150 young gentlemen for direct commissions under the existing regulations (dated Horse Guards, 1st January 1867, a copy of which is enclosed) in May next.

In the event of the Commissioners being able to undertake this examination, I am to request that they will fix the day and place and notify the same to Mr. Cardwell.

I am, &c.

Subjects to be comprised in future examinations.

The Under Secretary of State for War, to the Secretary, Civil Service Commission.

SIR, War Office, 1st June 1870.

I AM directed by the Secretary of State for War, to transmit to you for the consideration of the Civil Service Commissioners, the accompanying copies of a letter which Mr. Cardwell caused to be addressed to the Director General of Military Education, and of his reply, with respect to the subjects to be comprised in future examinations for direct commissions, and for admission to the Military Educational Establishments, and especially as to how far it is desirable to give additional importance to Natural and Physical Science, and the English Language.

Mr. Cardwell will be glad to be furnished with the opinions of the Commissioners on this subject.

I am, &c.

ENCLOSURE 1.

SIR, War Office, 26th April 1870.

I AM directed by Mr. Secretary Cardwell to call your attention to the discussion which took place in the House of Commons on the 8th instant, with regard to the subjects to be comprised in future examinations for direct commissions and for admission to the Military Educational Establishments, and especially as to how far it is desirable to give additional importance to natural and physical science, and the English language.

You are aware that at the examinations for direct commissions to be held during the summer, the subjects will remain the same as under the existing regulations.

With regard to the Royal Military College it is not intended to admit any more cadets until all those at present in the college shall have passed out.

The new regulations for Woolwich as regards subjects will not come into force until Midsummer 1871, and the Civil Service Commissioners by whom, as you are aware all future examinations will be conducted, have been invited to suggest any alterations that may occur to them after the scheme has been tried, and the practical results ascertained, at the same time the Civil Service Commissioners have already intimated a wish to reconsider the subject without waiting for the result of experience. Although, therefore it is unnecessary to come to any immediate decision as to the precise number of marks hereafter to be assigned to each subject of examination, Mr. Cardwell is not the less anxious that the whole subject should receive your most careful consideration, and he is of opinion that it may best be dealt with in the manner indicated in his reply to the observations made during the discussion of the question in the House of Commons, and to which therefore I am to refer you.

I am, &c.

ENCLOSURE 2.

Military Educational Office.

SIR, 13, Great George Street, S.W., 13th May 1870.

Subjects to be comprised in future examinations.

HAVING as directed in your letter of the 26th April 1870, No. 7680/183, given my most careful consideration to the whole subject of examinations for entrance to the army and the military colleges, as well as to the future course of education at those establishments, I have the honor to submit the following observations to the consideration of the Secretary of State for War.

The discussion which took place in the House of Commons on the 8th April 1870, raises two important questions.

First.—What should be the subjects of the examinations for direct commissions and for entrance to the military colleges, and what the relative value of those subjects should be.

Secondly.—What subjects should be comprised in the course of education at the military colleges.

With respect to the entrance examinations the Council of Military Education have always declared themselves to be "fully convinced of the soundness of the principle "which would base the examinations both of aspirants for direct commissions, and of "candidates for admission to the military colleges on the general education of the "country."

They have also been desirous of opening the portals of the army, as widely as is consistent with the principle that an officer should have received the ordinary education of an English gentleman These sentiments appear to be in complete accord with what fell from the Secretary of State for War in the discussion in the House of Commons on the 8th April 1870, and if the soundness of these principles be admitted, the point to be determined is, what subjects does that general education usually comprise.

The Council of Military Education have always considered the following as the usual subjects of education, and have given to them the proportional value placed opposite to each.

	Relative Value.
The classics	6
Mathematics	6
English	2
French	2
Each other modern language	2
History and geography	2
Natural science	2
Experimental sciences	2
Drawing	1

In the entrance examination for Woolwich these respective values were slightly modified, but not to such an extent as to effect the general principle laid down.

The Royal Commission on Military Education have materially altered the respective value of the subjects, and have omitted natural sciences altogether from the examinations.

They propose for the direct commission examinations the following proportional value—

Classics	7
Mathematics	4
Each foreign language	2
English language	$1\frac{1}{2}$
English History	$1\frac{1}{2}$
Experimental sciences	$1\frac{1}{2}$
Drawing	1

and for the entrance examinations for Sandhurst and Woolwich, they propose the following—

Classics	5
Mathematics	4
Each foreign language	2
English language	$1\frac{1}{2}$
English history	$1\frac{1}{2}$
Experimental sciences	$1\frac{1}{2}$
Drawing	1

Subjects to be comprised in future examinations.

A glance at these tables shows that while by the scheme of the Council of Military Education classics and mathematics were made of equal value, and all other subjects (except drawing, which was placed lower) received one-third of the value of classics or mathematics, the Royal Commissioners have raised classics much above mathematics and have depressed English history and experimental sciences, while they have altogether excluded natural sciences.

It must be confessed that this action is retrogressive and opposed to the tendency of modern general education, which is rather to attach less importance to the classics, and to foster the study of English and the sciences.

It is also opposed to the doctrine laid down in the House of Commons by Mr. Cardwell, that science should not be depressed for the purpose of elevating classics.

The principle of basing the examinations on the general education of the country has apparently been lost sight of by the Royal Commissioners, who seem rather to have leaned towards favouring the great public schools somewhat at the expense of general education.

They were no doubt influenced in this by the general wish of commanding officers of regiments, as evinced in the evidence before them, to get young men into the army direct from the public schools, and also by the feeling that a superficial knowledge of such subjects as English history, geography, chemistry, and geology could be readily obtained by having resort to cramming establishments, a practice which every friend to education and to discipline must wish to discourage.

After much consideration of the whole subject I am of opinion that the list of subjects laid down by the Council of Military Education, as well as the relative value of those subjects, is preferable to that proposed by the Royal Commission, and I am only led to hesitate to recommend an immediate return to the old scheme by the consideration that the scheme of the Royal Commissioners has already been introduced into the Woolwich examinations. It might not therefore be convenient to depart from the new plan so soon after its adoption, but with respect to the direct commission examinations I would certainly reduce the value given to classics from seven to five, and I would introduce geology as a subject in all the examinations, trusting to a viva voce examination in it, and such other subjects as may be easily crammed, to defeat that objectionable practice.

There remains to be considered the second question, namely, the subjects which should be comprised in the educational courses at the military colleges.

The Government having consulted and acted in accord with the general education of the country, with respect to the examinations for entrance to these colleges, has a perfect right to exercise its judgment as regards the particular course of instruction to be followed at each of the colleges, and to determine what subjects are likely to be most useful to the future officer.

The only deficiency that may be pointed out in the Woolwich course appears to be the omission of geology. This omission was made two years ago at the recommendation of the Council of Military Education, not because the Council did not attach due importance to the value of that science, but because they wished to introduce the study of military history, and as at that time every subject taught at the Academy was compulsory on every cadet, there was no room for an additional subject without displacing one of those already existing. Military history was therefore substituted for geology, but now that the principle of voluntary subjects has been admitted at the Academy, there appears to be no reason for not including geology among the voluntary subjects, for it will hardly be disputed that a good practical knowledge of geology is likely to be more useful to an engineer than a knowledge of classics, which subject has been included in the voluntary course.

Similar reasons incline me to the opinion that geology might fairly be re-admitted among the voluntary subjects at the Royal Military College, and that physics, which has been recommended by the Commissioners as an obligatory subject, should be removed from that portion of the course, and transferred to the voluntary portion.

I have, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State, War Office.

Subjects to be comprised in future examinations.

SIR, 22nd June 1870.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 1st instant, transmitting, by desire of the Secretary of State for War, for the consideration of the Commissioners, copies of a letter which Mr. Cardwell caused to be addressed to the Director-General of Military Education, and of his reply, regarding the subjects to be comprised in future examinations for direct commissions and for admission to the military educational establishments, and the relative weight to be given to certain of those subjects, and requesting to be furnished with the opinion of the Commissioners on the points in question.

In reply I am to request that you will state to Mr. Cardwell that the Commissioners are disposed to concur generally in the opinion expressed by the Director of Military Education, that in so far as the tendency of the new regulations is to raise the value of classics relatively to mathematics, to depress English history and experimental sciences, and to discourage altogether the study of natural science, their action is "retrogressive, and opposed to the tendency of modern general "education."

With regard to the examinations for admission to the Royal Academy, the Commissioners ventured to point out in their letter of the 19th February the inadequacy of the number of marks offered under the head of English; but they were informed in reply that it was not Mr. Cardwell's wish to depart from the proposed scheme until it had been tried and its practical results ascertained. If circumstances have led Mr. Cardwell to reconsider this subject, they would beg now to suggest that the evil might be remedied with but little disturbance of the scheme as framed by the Royal Commissioners if the restriction were removed which prevents a candidate from taking up both of the subjects marked 2 and 2 (*a*); in other words, from studying together two subjects which it appears to the Commissioners especially desirable to combine, viz., English history and English literature. It would then be possible for a candidate to obtain by adequate study under the head of English a number of marks equal to that which is obtainable under the head of Latin. Similarly in place of the alternative now offered under the seventh head, liberty might be given to take up both an experimental and a natural science. In that case the maximum number of marks obtainable by adequate proficiency under the head of science would be 3,000; but it would be understood that in this, as in other subjects, marks would only be given in proportion to the extent and soundness of the knowledge shown.

The regulations thus modified would appear to the Commissioners to be equally applicable to future examinations for direct commissions, although those examinations would of course be framed with the view of testing a lower standard of proficiency in the several subjects.

I have, &c.

The Military Secretary, to the Secretary, Civil Service Commission.

Examination for Royal Malta Fencible Artillery.

SIR, Horse Guards, 10th May 1870.

I AM directed by the Field Marshal Commanding-in-Chief to request you will be good enough to forward to His Excellency the Governor of Malta, the necessary papers for the examination, in that island of eight gentlemen who are candidates for an appointment at present vacant, in the Royal Malta Fencible Artillery Corps.

I have, &c.

Examination for Royal Malta Fencible Artillery.

The Secretary, Civil Service Commission, to the Under Secretary of State for War.

SIR, 18th May 1870.

WITH reference to your letter of the 29th ultimo, 7680/166, I am directed by the Civil Service Commissioners to acquaint you that they have now received application to examine certain candidates abroad for direct commissions in the army, and that they are prepared to do so under the regulations which were enclosed with your letter. They have also been requested to undertake an examination for an appointment in the Royal Malta Fencible Artillery, and as they are not aware whether this is a commission of the same character, they would be glad to be informed what rules are applicable to such an examination.

I have, &c.

The Under Secretary of State for War, to the Secretary, Civil Service Commission.

SIR, War Office, 25th May 1870.

I AM directed by the Secretary of State for War to acknowledge the receipt of your letter of the 18th instant, and to acquaint you in reply that he will feel obliged by the Civil Service Commission undertaking the examination of the candidates for the vacancy in the Royal Malta Fencible Artillery in accordance with the enclosed programme.

* * * * *

I have, &c.

ENCLOSURE.

SCALE OF MARKS.

	Maximum.	Minimum allowed to count.	Required for Qualification.
*English	4,800	800	800
†Mathematics	3,600	600	200
French	1,200	200	—
Italian	1,200	200	—
General history (modern)	1,200	200	—
Geography	1,200	200	—
‡Fortification (permanent)	1,200	200	—
Experimental sciences	1,200	200	—
§Drawing	600	100	—

Of the above subjects English and arithmetic alone must necessarily be taken up. The rest are voluntary.

* 800 marks in English must be obtained.

† 200 marks in arithmetic must be obtained.

‡ Fortification will be confined to Vauban's system, with attack and defence of the same.

§ Drawing will be confined to free-hand copying from examples.

An aggregate total of 1,800 on all the subjects taken up will be necessary for qualification.

2.—EXAMINATION FOR DIRECT COMMISSIONS.

MAY 1870.

EXAMINATION FOR DIRECT COMMISSIONS.

REGULATIONS.

Regulations.

Horse Guards, 1st January 1867.

1. The examinations of candidates for direct commissions will be held in London at such periods as the exigencies of the service may require, and be conducted under the direction of the Civil Service Commissioners by examiners appointed for the purpose. The number of candidates summoned to attend each examination will be limited to the requirements of the service.

2. The age of candidates examined for direct appointments will be, until further notice, from 17 to 20 years for the infantry, from 17 to 22 years for the cavalry, and from 17 to 26 years for colonial corps.*

3. The candidate will be examined by a medical board, to ascertain that he is in every point of view, as regards his physical constitution, fit for military service.

He will be required to produce the following certificates, which must be forwarded to the Military Secretary, Horse Guards, S.W., as soon as possible after the receipt of the Military Secretary's order to attend for examination.

a. A certificate of baptism, or other satisfactory proof of his age.

b. A certificate from a minister of the church or of the denomination to which he belongs, that he has been duly instructed in the principles of religion.

c. A certificate of good moral character, signed by a clergyman of the parish to which he belongs, or by the tutor or head of the school or college at which he has received his education for at least the two preceding years ; or such other proof of good moral character as will be satisfactory to the Commander-in-Chief.

d. A statement of the subjects in which he wishes to be examined.

4. The following will be the subjects of examination, but no candidate will be allowed to be examined in more than *five* of these subjects :—

		Marks.
The classics	Latin	2,000
	Greek	1,600
Mathematics, pure and mixed		3,600
English language		1,200
†Modern languages (not including provincial dialects) each		1,200
History, ancient and modern, with geography		1,200
Natural sciences, *i.e.*, mineralogy and geology		1,200
Experimental sciences, *i.e.*, chemistry, heat, electricity including magnetism		1,200
Drawing		600

5. Of the foregoing subjects the elementary branches of mathematics and the English language, to the extent stated in the following paragraphs, will be considered obligatory :

* The candidates already on the Commander-in-Chief's list may be examined between the limits of age fixed by the regulations which were in force at the time their names were recorded.

† Each modern language is reckoned as one subject.

DIRECT COMMISSIONS, MAY 1870.

Regulations.

(1.) In mathematics 1,200 marks will be given to the following obligatory portions, viz., arithmetic, including vulgar and decimal fractions, proportion, extraction of the square root, and simple interest.

Algebra, including fractions, simple equations, and questions producing them. Euclid, the first three books.

Of the 1,200 marks allotted to the foregoing portions of mathematics, 400 will be required for qualification, and of these at least 200 must be obtained in arithmetic.

(2.) In the English language the candidate will be required to write correctly and in a good legible hand from dictation, and to compose grammatically. He will be required to obtain at least 200 marks in this subject.

(3.) Out of the remaining subjects the candidate may select any three.

(4.) No candidate will be allowed to count the marks gained in any one of the three voluntary subjects, unless amounting to one-sixth of the whole number of marks allotted to that subject; and for qualification he will be required to obtain on his five subjects a total of 1,500 marks.

(5.) In the examination in classics passages will be given for translation from the books usually read at schools; grammatical questions will be set, and English passages also given for translation into the Latin and Greek languages.

6. The result of each examination will be reported to the Commander-in-Chief, and the names of any candidates who distinguish themselves will be specially brought to his notice.

7. An unsuccessful candidate will not be debarred from applying to the Commander-in-Chief for permission to attend a future examination. No candidate, however, will be allowed more than three trials.

Should a candidate obtain only between 700 and 1,200 marks, he will not be allowed to present himself for re-examination for at least six months. If he obtains less than 700 marks, a period of at least twelve months must elapse before he can be allowed to present himself again.

In all cases permission to be re-examined must depend upon the number of applicants on the list.

In subsequent examinations no credit will be given for the marks gained by a candidate on former occasions.

In the event of a candidate not appearing for examination at the time appointed, such candidate will not be permitted to attend on the next occasion, and he will render himself liable to have his name either erased entirely or placed at the bottom of the list of those noted for examination.

8. A student at either of the Universities of Oxford, Cambridge, Dublin, London, St. Andrews, Glasgow, Aberdeen, Edinburgh, or Queen's University, Ireland, who shall have passed the examination necessary for taking a degree in Arts, is qualified for a commission by purchase without being required to pass the foregoing examination, provided he is within the limits of 17 and 23 years of age if for the infantry, 17 and 25 years if for the cavalry, and of 17 and 28 years for colonial corps, and can produce the certificates marked (*a*), (*b*), and (*c*).

Such candidate must furnish a certificate of having graduated, or of having passed the examination, signed by the registrar of the university, and showing the date on which the examination took place.

On his application being approved, the candidate will receive an order to be medically examined as to his physical fitness for the service.

The candidate will address his application, accompanied by the necessary certificates, to the Military Secretary, Horse Guards.

W. F. FORSTER, Military Secretary.

EXAMINATIONS FOR DIRECT COMMISSIONS, MAY 1870.

DIRECT COMMISSIONS, MAY 1870.

EXAMINATION PAPERS.

LATIN.

Thursday, 19th May 1870. 10 A.M. to 1 P.M.

Grammatical Questions.

1. Decline *rus*, *domus*, *unus*, and *ipse*.
2. Give examples (1) of nouns and pronouns which make the vocative singular in *-i*; (2) of nouns which make the accusative singular in *-im*; (3) of nouns which increase by more than one syllable in the genitive case.
3. Give the comparatives and superlatives of *bonus*, *malus*, *magnus*, *parvus*, *dives*, *multùm*, *crebrò*; and the superlatives of *utilis*, *facilis*, and *teter*.
4. Give a list of the Latin pronouns under the several heads of (1) Personal; (2) Possessive; (3) Reflexive; (4) Interrogative; (5) Relative; (6) Demonstrative; and (7) Indefinite.
5. Translate into Latin: "A hundred and fifty books." "Two hundred and twenty horses." "Five hundred and eighteen cows." "A million sesterces." (The numerals are to be expressed in full, not by signs.)
6. Give the perfect (1st person singular), the present infinitive, and the supine of *ago*, *alo*, *fallo*, *fero*, *fio*, *gaudeo*, *gigno*, *reddo*, *redeo*, *reor*, *scio*, and *seco*.
7. What are the principal uses of the infinitive mood in Latin? Illustrate by examples.
8. Distinguish between *quamvis* and *etsi*; *sed*, *autem*, and *tamen*; *dum*, *dummodo*, and *donec*; *subinde* and *identidem*; *celeriter* and *properè*.
9. In what senses do *ut* and *quum* take the indicative mood after them? And when is the relative pronoun followed by the subjunctive?
10. Translate into Latin:—
    a. So far from being ashamed of what he had done, he continually boasted of it.
    b. He said that he did not know what they wanted of him.
    c. He let Cæsar know by a messenger what he thought ought to be done.

Passages for Translation.

[N.B.—*Candidates are recommended to translate one or more of the short passages before proceeding to the longer passages from authors.* NOT MORE THAN TWO *of the longer passages are to be translated.*]

Est in Africa consuetudo incolarum, ut in agris, et in omnibus fere villis, sub terra specus condendi frumenti gratia clam habeant, atque id propter bella maxime hostiumque subitum adventum præparent.

DIRECT COMMISSIONS, MAY 1870.

Zeno Eleates perpessus est omnia potius, quam conscios delendæ tyrannidis indicaret. Calenus Indus, indoctus ac barbarus, in radicibus Caucasi natus, sua voluntate vivus est combustus. Nos, si pes condoluit, si dens, si tactum est dolore corpus, ferre non possumus.

Nec muris urbis luctus continebatur; sed proximam regionem ab ea, deinde magnam partem Asiæ cis Euphratem tanti mali fama pervaserat. Ad Darii quoque matrem celeriter perlata est. Abscissa ergo veste, qua induta erat, lugubrem sumsit; laceratisque crinibus, humi corpus abjecit.

Ego, Pamphile, hoc tibi pro servitio debeo,
Conari manibus, pedibus, noctesque et dies
Capitis periculum adire, dum prosim tibi.
Tuum est, si quid præter spem evenit, mî ignoscere.
Parum succedit quod ago; at facio sedulò.
Vel melius tu aliud reperi; me missum face.

Cæsar, cognito consilio eorum, ad flumen Tamesin in fines Cassivellauni exercitum duxit; quod flumen uno omnino loco pedibus, atque hoc ægre, transiri potest. Eo quum venisset, animum advertit, ad alteram fluminis ripam magnas esse copias hostium instructas: ripa autem erat acutis sudibus præfixis munita; ejusdemque generis sub aqua defixæ sudes flumine tegebantur. His rebus cognitis a captivis perfugisque, Cæsar, præmisso equitatu, confestim legiones subsequi jussit. Sed ea celeritate atque eo impetu milites ierunt, quum capite solo ex aqua exstarent, ut hostes impetum legionum atque equitum sustinere non possent ripasque dimitterent ac se fugæ mandarent.

CÆSAR.

Verum sit sane, ut vultis, deus effigies hominis et imago: quod ejus est domicilium? quæ sedes? qui locus? quæ deinde actio vitæ? quibus rebus, id quod vultis, beatus est? Utatur enim suis bonis oportet et fruatur, qui beatus futurus est. Nam locus quidem iis etiam naturis, quæ sine animis sunt, suus est cuique proprius, ut terra infimum teneat, hanc inundet aqua; superior aëri, ignibus altissima ora reddatur. Bestiarum autem terrenæ sunt aliæ, partim aquatiles, aliæ quasi ancipites, in utraque sede viventes; sunt quædam etiam, quæ igni nasci putentur, apparcantque in ardentibus fornacibus sæpe volitantes. Quæro igitur, vester deus primum ubi habitet: deinde quæ caussa eum loco moveat; si modo movetur aliquando.

CICERO.

Fabius ab Suessula profectus Arpos primum institit oppugnare. Ubi quum a quingentis fere passibus castra posuisset, contemplatus ex propinquo situm urbis mœniaque, quæ pars tutissima mœnibus erat—quia maxime neglectam custodia vidit—ea potissimum adgredi statuit. Comparatis omnibus, quæ ad urbes oppugnandas usui sunt, centurionum robora ex toto exercitu delegit tribunosque viros fortes eis præfecit et milites sexcentos, quantum satis visum est, adtribuit, eosque, ubi quartæ vigiliæ signum cecinisset, ad eum locum scalas jussit ferre. Porta ibi humilis et angusta erat infrequenti via per desertam partem urbis: eam portam scalis prius transgressos murum aperire ex interiore parte aut

claustra refringere jubet, et tenentes partem urbis cornu signum dare ut cæteræ copiæ admoverentur: parata omnia atque instructa sese habiturum.

LIVY.

Ductori Turno, diversa in parte furenti
Turbantique viros, perfertur nuncius, hostem
Fervere cæde nova, et portas præbere patentes.
Deserit inceptum, atque immani concitus ira
Dardaniam ruit ad portam fratresque superbos:
Et primum Antiphaten, is enim se primus agebat,
Thebana de matre nothum Sarpedonis alti,
Conjecto sternit jaculo: volat Itala cornus
Aëra per tenerum, stomachoque infixa sub altum
Pectus abit; reddit specus atri vulneris undam
Spumantem, et fixo ferrum in pulmone tepescit.
Tum Meropem atque Erymanta manu, tum sternit Aphidnum,
Tum Bitian ardentem oculis, animisque frementem,
Non jaculo—neque enim jaculo vitam ille dedisset.

VIRGIL.

Custode rerum Cæsare non furor
Civilis aut vis exiget otium,
  Non ira, quæ procudit enses
    Et miseras inimicat urbes.
Non, qui profundum Danubium bibunt,
Edicta rumpent Julia, non Getæ,
  Non Seres infidive Persæ,
    Non Tanaïn prope flumen orti.
Nosque et profestis lucibus et sacris
Inter joçosi munera Liberi
  Cum prole matronisque nostris,
    Rite Deos prius apprecati,
Virtute functos more patrum duces
Lydis remixto carmine tibiis
  Trojamque et Anchisen et almæ
    Progeniem Veneris canemus.

HORACE.

Translate into Latin Prose:—

At that time there came a strange woman to the king, and offered him nine books of the prophecies of the Sibyl for a certain price. When the king refused them, the woman went and burnt three of the books, and came back and offered the six at the same price which she had asked for the nine; but they mocked at her, and would not take the books. Then she went away and burnt three more, and asked still the same price for the remaining three. At this the king was astonished, and asked the augurs what he should do. They said that he had done wrong in refusing the gifts of the gods, and bade him by all means to buy the books that were left. So he bought them.

DIRECT COMMISSIONS, MAY 1870.

Translate into Latin Verse:—

The rain had fallen, the Poet arose;
He passed by the town, and out of the street:
A light wind blew from the gates of the sun,
And waves of shadow went over the wheat,
And he sat him down in a lonely place,
And chanted a melody loud and sweet,
That made the wild swan pause in her cloud,
And the lark drop down at his feet.

GREEK.

Thursday, 19th May 1870. 3 P.M. to 6 P.M.

Grammatical Questions.

1. Give the gender and accusative case singular of ἅλς, ἄλσος, ἀστήρ, γραῦς, γρύψ, δαΐς, δαίς, δάμαρ, ἦπαρ, λᾶας, νῆσος, and ῥίς.

2. Decline, through all three numbers, ναῦς, κρείττων, ἕο, and ὅστις.

3. Give instances of adjectives which form the comparative in *-ίων* and the superlative in *-ιστος*; and state from what positives the following comparatives come—ἄσσον, θᾶσσον, ῥᾶον, μᾶλλον, πρότερον, πορρωτέρω.

4. What tenses take the 'augment,' and what the 'reduplication' in Greek? Does any tense take both? Give the chief forms of the 'temporal augment.'

5. Parse each word in the following sentence:—

Ξέρξης, ὡς ἔμαθε τὸ γεγονὸς, δείσας μὴ ἀπολαμφθεὶς ἀπολέσθαι κινδυνεύσῃ, δρησμὸν ἐβούλευε.

6. Give the chief irregular tenses of the verbs ἄγνυμι, ἀναλίσκω, βαίνω, γιγνώσκω, εὑρίσκω, θιγγάνω, ὄρνυμι, πάσχω, πυνθάνομαι, and τρέφω. (The 1st person singular of each tense will suffice.)

7. Give the exact force of the following expressions (1) δῆλος εἶ εἴκων. (2) τελευτῶν ἔφη. (3) οὐκ ἂν φθάνοις ἀπελθών. (4) οὐ τοῦ ἐπιόντος ἦν εὑρεῖν. (5) ἅλις νοσοῦσ' ἐγώ.

8. What cases do the following prepositions govern?—ἅμα, ἀντί, ἀπό, εἰς, ἐκ, ἐν, ἕνεκα, παρά, ὑπέρ, χάριν.

9. Κτανὼν μ' ἐς οἶδμ' ἁλὸς μεθῆχ', ἵν' αὐτὸς χρυσὸν ἐν δόμοις ἔχῃ. Is ἔχῃ or ἔχοι right here? Give reasons for your answer.

10. Give the laws of the Anapæstic, or of the Trochaic, metre of Greek tragedy.

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[N.B.—*Candidates are recommended to attempt one or more of the* short passages *before proceeding to the longer passages from authors.* NOT MORE THAN TWO *of the longer passages are to be attempted.*]

Ἔδοξεν οὖν πᾶσι θέσθαι πρὸς πάντας εἰρήνην· καὶ συνῆλθον ἀπὸ τῆς Ἑλλάδος πρέσβεις εἰς Λακεδαίμονα ποιησόμενοι τὰς διαλύσεις. Ὢν εἷς ἦν Ἐπαμινώνδας, ἀνὴρ ἔνδοξος ἐπὶ παιδείᾳ καὶ φιλοσοφίᾳ, στρατηγίας δὲ πεῖραν οὔπω δεδωκώς.

Ὁ Εὐφράτης ποταμὸς ῥέων ἐκ τῶν Ἀρμενίων ὀρῶν, χειμῶνος μὲν ὥρᾳ προχωρεῖ κατὰ τὰς ὄχθας, οἷα δὴ οὐ πολλοῦ ὄντος αὐτῷ τοῦ ὕδατος· ἦρος δὲ ὑποφαίνοντος ὑπερβάλλει ὑπὲρ τὰς ὄχθας ἐς τὴν γῆν τὴν Ἀσσυρίαν· τηνικαῦτα γὰρ αἱ χιόνες αἱ ἐπὶ τοῖς ὄρεσι τοῖς Ἀρμενίοις κατατηκόμεναι αὔξουσιν αὐτῷ τὸ ὕδωρ ἐπὶ μέγα.

Παρὼν δέ τις Ἀπολλόδωρος, ἐπιθυμητὴς μὲν ἰσχυρῶς αὐτοῦ, ἄλλως δ' εὐήθης, εἶπεν· Ἀλλὰ τοῦτο ἔγωγε, ὦ Σώκρατες, χαλεπώτατα φέρω, ὅτι ὁρῶ σε ἀδίκως ἀποθνήσκοντα. τὸν δὲ λέγεται καταψήσαντα αὐτοῦ τὴν κεφαλὴν εἰπεῖν. Σὺ δὲ, ὦ φίλτατε Ἀπολλόδωρε, μᾶλλον ἂν ἐβούλου με ὁρᾶν δικαίως ἢ ἀδίκως ἀποθνήσκοντα; καὶ ἅμα ἐπιγελάσαι.

Ὦ μῖσος, ὦ μέγιστον ἐχθίστη γύναι
Θεοῖς τε κἀμοὶ, παντί τ' ἀνθρώπων γένει,
Ἥτις τέκνοισι σοῖσιν ἐμβαλεῖν ξίφος
Ἔτλης τεκοῦσα, κἄμ' ἄπαιδ' ἀπώλεσας·
Καὶ ταῦτα δράσασ' ἥλιόν τε προσβλέπεις,
Καὶ γαῖαν, ἔργον τλᾶσα δυσσεβέστατον.

Ἠὼς μὲν κροκόπεπλος ἐκίδνατο πᾶσαν ἐπ' αἶαν,
Ζεὺς δὲ θεῶν ἀγορὴν ποιήσατο τερπικέραυνος
Ἀκροτάτη κορυφῇ πολυδειράδος Οὐλύμποιο.
Αὐτὸς δέ σφ' ἀγόρευε, θεοὶ δ' ὑπὸ πάντες ἄκουον·
"Κέκλυτέ μευ, πάντες τε θεοὶ πᾶσαί τε θέαιναι,
Ὄφρ' εἴπω τά με θυμὸς ἐνὶ στήθεσσι κελεύει.
Μήτε τις οὖν θήλεια θεὸς τό γε μήτε τις ἄρσην
Πειράτω διακέρσαι ἐμὸν ἔπος, ἀλλ' ἅμα πάντες
Αἰνεῖτ', ὄφρα τάχιστα τελευτήσω τάδε ἔργα.
Ὅν δ' ἂν ἐγὼν ἀπάνευθε θεῶν ἐθέλοντα νοήσω
Ἐλθόντ' ἢ Τρώεσσιν ἀρηγέμεν ἢ Δαναοῖσιν,
Πληγεὶς οὐ κατὰ κόσμον ἐλεύσεται Οὔλυμπόνδε·
Ἤ μιν ἑλὼν ῥίψω ἐς Τάρταρον ἠερόεντα,
Τῆλε μάλ', ἦχι βάθιστον ὑπὸ χθονός ἐστι βέρεθρον.

HOMER.

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Καλῶς· σὺ μέν νυν, σύγγον' Ἠλέκτρα, δόμων
Πάρος μένουσα παρθένου δέχου πόδα·
Φύλασσε δ', ἤν τις, πρὶν τελευτηθῇ φόνος,
Ἢ ξύμμαχός τις ἢ κασίγνητος πατρὸς
Ἐλθὼν ἐς οἴκους φθῇ, γέγωνέ τ' ἐς δόμους,
Ἢ σανίδα παίσας' ἢ λόγους πέμψας' ἔσω.
Ἡμεῖς δ' ἔσω στείχοντες ἐπὶ τὸν ἔσχατον
Ἀγῶν' ὁπλιζώμεσθα φασγάνῳ χέρας,
Πυλάδη· σὺ γὰρ δὴ συμπονεῖς ἐμοὶ πόνους.
Ὦ δῶμα ναίων νυκτὸς ὀρφναίας πάτερ,
Καλεῖ σ' Ὀρέστης παῖς σὸς ἐπίκουρον μολεῖν
Τοῖς δεομένοισι. διὰ σὲ γὰρ πάσχω τάλας
Ἀδίκως· προδέδομαι δ' ὑπὸ κασιγνήτου σέθεν,
Δίκαια πράξας· οὗ θέλω δάμαρθ' ἑλὼν
Κτεῖναι· σὺ δ' ἡμῖν τοῦδε συλλήπτωρ γενοῦ.

EURIPIDES.

Ἐνταῦθα ἔμειναν ἡμέρας τρεῖς καὶ τῶν τετρωμένων ἕνεκα καὶ ἅμα ἐπιτήδεια πολλὰ εἶχον, ἄλευρα, οἶνον, κριθὰς ἵπποις συμβεβλημένας πολλάς. ταῦτα δὲ συνενηνεγμένα ἦν τῷ σατραπεύοντι τῆς χώρας. τετάρτῃ δ' ἡμέρᾳ καταβαίνουσιν εἰς τὸ πεδίον. ἐπεὶ δὲ κατέλαβεν αὐτοὺς Τισσαφέρνης σὺν τῇ δυνάμει, ἐδίδαξεν αὐτοὺς ἡ ἀνάγκη κατασκηνῆσαι οὗ πρῶτον εἶδον κώμην καὶ μὴ πορεύεσθαι ἔτι μαχομένους· πολλοὶ γὰρ ἦσαν ἀπόμαχοι οἱ τετρωμένοι καὶ οἱ ἐκείνους φέροντες καὶ οἱ τῶν φερόντων τὰ ὅπλα δεξάμενοι. ἐπεὶ δὲ κατεσκήνησαν καὶ ἐπεχείρησαν αὐτοῖς ἀκροβολίζεσθαι οἱ βάρβαροι πρὸς τὴν κώμην προσιόντες, πολὺ περιῆσαν οἱ Ἕλληνες· πολὺ γὰρ διέφερον ἐκ χώρας ὁρμῶντες ἀλέξασθαι ἢ πορευόμενοι ἐπιοῦσι τοῖς πολεμίοις μάχεσθαι.

XENOPHON.

Τοῦ δ' αὐτοῦ χειμῶνος οἱ Ποτιδαιᾶται, ἐπειδὴ οὐκέτι ἐδύναντο πολιορκούμενοι ἀντέχειν, ἀλλ' αἵ τε ἐς τὴν Ἀττικὴν ἐσβολαὶ Πελοποννησίων οὐδὲν μᾶλλον ἀπανίσταsαν τοὺς Ἀθηναίους, ὅ τε σῖτος ἐπελελοίπει, καὶ ἄλλα τε πολλὰ ἐπεγεγένητο αὐτόθι ἤδη βρώσεως πέρι ἀναγκαίας, καί τινες καὶ ἀλλήλων ἐγέγευντο, οὕτω δὴ λόγους προσφέρουσι περὶ ξυμβάσεως τοῖς στρατηγοῖς τῶν Ἀθηναίων τοῖς ἐπὶ σφίσι τεταγμένοις, Ξενοφῶντί τε τῷ Εὐριπίδου καὶ Ἑστιοδώρῳ τῷ Ἀριστοκλείδου καὶ Φανομάχῳ τῷ Καλλιμάχου. οἱ δὲ προσεδέξαντο, ὁρῶντες μὲν τῆς στρατιᾶς τὴν ταλαιπωρίαν ἐν χωρίῳ χειμερινῷ, ἀναλωκυίας τε ἤδη τῆς πόλεως δισχίλια τάλαντα ἐς τὴν πολιορκίαν. ἐπὶ τοῖσδε οὖν ξυνέβησαν, ἐξελθεῖν αὐτοὺς καὶ παῖδας καὶ γυναῖκας καὶ τοὺς ἐπικούρους ξὺν ἑνὶ ἱματίῳ, γυναῖκας δὲ ξὺν δυοῖν, καὶ ἀργύριόν τι ῥητὸν ἔχοντας ἐφόδιον.

THUCYDIDES.

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Ταῦτα δ' ἔτι τούτου ἐπικαλευμένου προεξαναστάντες πρότεροι οἱ Τεγεῆται ἐχώρεον ἐς τοὺς βαρβάρους, καὶ τοῖσι Λακεδαιμονίοισι αὐτίκα μετὰ τὴν εὐχὴν τὴν Παυσανίεω ἐγίνετο θυομένοισι τὰ σφάγια χρηστά. ὡς δὲ χρόνῳ κοτὲ ἐγένετο, ἐχώρεον καὶ οὗτοι ἐπὶ τοὺς Πέρσας, καὶ οἱ Πέρσαι ἀντίοι τὰ τόξα μετέντες. ἐγίνετο δὲ πρῶτον περὶ τὰ γέρρα μάχη. ὡς δὲ ταῦτα ἐπεπτώκεε, ἤδη ἐγίνετο μάχη ἰσχυρὴ παρ' αὐτὸ Δημήτριον καὶ χρόνον ἐπὶ πολλὸν, ἐς ὃ ἀπίκοντο ἐς ὠθισμόν· τὰ γὰρ δόρατα ἐπιλαμβανόμενοι κατέκλων οἱ βάρβαροι. λήματι μέν νυν καὶ ῥώμῃ οὐκ ἔσσονες ἦσαν οἱ Πέρσαι, ἄνοπλοι δὲ ἐόντες καὶ πρὸς ἀνεπιστήμονες ἦσαν καὶ οὐκ ὁμοῖοι τοῖσι ἐναντίοισι σοφίην. προεξαΐσσοντες δὲ κατ' ἕνα καὶ δέκα, καὶ πλεῦνές τε καὶ ἐλάσσονες συστρεφόμενοι, ἐσέπιπτον ἐς τοὺς Σπαρτιήτας καὶ διεφθείροντο.

HERODOTUS.

Translate into Greek Prose:—

When Cadmus was now settled at Thebes, Mars and Minerva give him one half of the serpent's teeth, and the other half they give to Æetas. And Cadmus straightway sows them upon the ploughed land, as Mars bid him, and there springs up for him a crop of armed men. And Cadmus is afraid, and throws at them with stones; and they, thinking that they are being thrown at by each other, slay each other, and die, excepting five men. And these Cadmus makes citizens, and causes them to dwell in Thebes.

Translate into Greek Verse:—

Come, my friends,
'Tis not too late to seek a newer world.
Push off, and sitting well in order, smite
The sounding furrows: for my purpose holds
To sail beyond the sunset, and the baths
Of all the western stars, until I die.
It may be that the gulfs will wash us down;
It may be we shall reach the Happy Isles,
And see the great Achilles, whom we knew.

MATHEMATICS.

Wednesday, 18th May 1870. 10 A.M to 1 P.M.

OBLIGATORY PORTION.

Arithmetic.

1. Find the number of pounds Troy in three hundred millions, three thousands, eight hundred and forty grains.
2. If 257 pounds of tea cost 34*l.* 16*s.* 0½*d.*, what is the price of a pound?
3. If a peck of corn weighs 7 lbs. 5 oz. Avoirdupois, what is the weight at that rate of 73 quarters 1 bushel?

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4. A rectangular cistern 9 feet long, 5 feet 4 inches wide, and 2 feet 3 inches deep, is filled with liquid which weighs 2,520 pounds. How deep must a rectangular cistern be which will hold 3,850 pounds of the same liquid, its length being 8 feet, and its width 5 feet 6 inches?
5. Divide $\frac{7}{16}$ of $\frac{9}{11}$ by $2\frac{1}{3}$ of $1\frac{1}{4}$. How many square yards are there in the fraction of an acre which the result represents?
6. Multiply 28·8 by ·0595, and divide the product by 9520.
7. Find, as a fraction in its lowest terms, the difference between $\frac{1}{8900}$ and $\frac{1}{9709}$, and then express that difference by a recurring decimal.
8. Find the value of ·00625 of a sovereign.
9. What is the principal sum to be placed at simple interest at the rate of $4\frac{1}{4}$ per cent. per annum that in 16 months it may amount to 39*l.* 12*s.* 6*d.*?
10. Extract the square root of 452929.

VOLUNTARY PORTION.

1. To inscribe a circle in a given triangle.
   If the triangle is isosceles, prove that the unequal side is bisected at the point where the inscribed circle touches it.
2. If the base of a triangle be divided into two segments which have the same ratio which the other sides of the triangle have to one another, the straight line drawn from the vertex to the point of section shall bisect the vertical angle.
3. Employ the tables of logarithms to compute the value of the fraction $\frac{483}{\cdot 4830872}$, also the value of $\sqrt[3]{84{\cdot}86 \tan A}$ when A is 163° 14′.
4. Find the angles of the right-angled triangle whose shorter sides are 837 and 864 feet in length.
5. Compute the area of a regular decagon of which each side is a foot in length.
6. A uniform bar, a pound in weight, can turn about a fulcrum which is 8 inches from one of its ends and 4 inches from the other. What force applied vertically at the end more distant from the fulcrum will keep the bar in a horizontal position, and what will be the pressure on the fulcrum?
7. A body is projected horizontally with a velocity of 1,000 feet per second. After what time will it be moving in a direction inclined at 45° to the horizon, supposing that any resistance of the air may be disregarded, and the force of gravity be taken to be 32 feet?

MATHEMATICS.

Wednesday, 18th May 1870. 3 P.M. to 6 P.M.

OBLIGATORY PORTION.

Algebra.

1. From $(x^2 - 2x + 3)^2$ subtract $(x^2 - 2x + 1)^2$, and find the value of the remainder when $x = 2$.
2. Multiply $a^2 - b^2$ by $a^3 - b^3$,
   and divide the product by $a^2 - 2ab + b^2$.

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3. Reduce $\frac{x^3 - a^3}{x + a} - \frac{x^3 + a^3}{x - a}$ to a single fraction in its lowest terms.

4. Solve the equations—

(1.) $\frac{5}{3}(x+1) = 3(x-3) - \frac{1}{4}(x-8)$.

(2.) $(a-x)(x+b) - (b-x)(x+a) = 2b(a-b)$.

(3.) $\left.\begin{aligned} x &= 4 + \frac{1}{7}(y+5) \\ y &= 2 - \frac{1}{12}(5-x) \end{aligned}\right\}$

5. A and B are two vessels of water. If a gallon of water is taken from A and poured into B, they have then the same quantity of water. If a gallon of water is taken from B and poured into A, A has then twice as much water as B. What quantities of water do the vessels at first contain?

6. An express train and a goods train start from the ends of a line 120 miles long, and travelling with uniform speeds they meet at the middle point of the line. The goods train started an hour earlier than the express train, and travels at two thirds of its speed. What is the speed of each train?

Euclid.

1. At a given point in a given straight line, to make a rectilineal angle equal to a given rectilineal angle.
2. Equal triangles on the same base and on the same side of it, are between the same parallels.
3. Define a square. To describe a square that shall be equal to a given rectilineal figure.
4. To bisect a given circumference, that is, to divide it into two equal parts.

VOLUNTARY PORTION.

1. To find a mean proportional between two given straight lines.
2. When is a straight line at right angles to a plane?
   If two straight lines be at right angles to the same plane, they shall be parallel to one another.
3. Solve the equations—

(1.) $x^4 - 3x^2 + 2 = 0$.

(2.) $\left.\begin{aligned} x + y &= 10 \\ \sqrt{x} + \sqrt{y} &= 4 \end{aligned}\right\}$

4. Determine the arithmetical progression wherein the sum of n terms is $n^2 + 2n$, whatever number n be.

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ENGLISH LANGUAGE AND COMPOSITION.

Tuesday, 17th May 1870. 10 A.M. to 1 P.M.

(*Only one of the two subjects for Composition is to be attempted.*)

Subject for Composition:

either,

1. Describe a visit to an armoury, arsenal, or dockyard.

or,

2. The advantages and the disadvantages, if any, of having been born in the Nineteenth Century.

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3. How many moods are there in English? Show, with example, how they differ in use.
4. Enumerate the auxiliary verbs, and point out the difference in their meaning when used as auxiliaries, and when used independently.
5. Which of the common terminations of English substantives and adjectives are of Latin, and which of Anglo-Saxon origin?
6. Distinguish between a clause, a paragraph, and a sentence; and between a full stop, a semicolon, a comma, and a colon.
7. Account for the presence in the following words of certain letters which are not pronounced: *Heir, Could, Psalmody, Friend, Greenwich, Billet-doux, Light, Rhyme, Receipt, Mechanic.*
8. What rules of syntax are broken in the following sentences?—"I beg to say that that person has left our employment two years since;" "Either Mr. or Mrs. Smith, with their two children, are coming here to-morrow;" "He has not kept his promise that the work shall be finished in three days;" "I admit that he is better than me."
9. Rewrite the following sentences in a corrected form, but with as little change as possible:—"The premier was empowered to grant one pension a year to such persons, who having made the necessary declaration, he should think most deserving of them;" "Every branch of trade is necessary to each other;" "They let off the same jokes for the hundredth and fiftieth time;" "The Secretary of the Treasury has ordered that in future the sale of gold and purchase of bonds will be made on alternate weeks;" "I consider your correspondent's letter only such an attack which unreasonable men would attempt to make upon those persons whom they consider were encroaching on their sacred rights;" "She laid awake thinking of it almost all the night."

FRENCH.

Friday, 20th May 1870. 10 A.M. to 1 P.M.

I.

Translate into English :—

Sur une grève derrière cet essaim d'ennemis on apercevait le camp des Francs semblable à un marché de laboureurs et de pêcheurs ; il était rempli de femmes et d'enfants, et retranché avec des bateaux de cuir et des chariots attelés de grands bœufs. Non loin de ce camp champêtre, trois sorcières en lambeaux faisaient sortir de jeunes cavales d'un bois sacré, afin de découvrir par leur course à quel parti les dieux promettaient la victoire. La mer d'un côté, des forêts de l'autre, formaient le cadre de ce grand tableau. Le soleil du matin s'échappant des replis d'un nuage d'or, verse tout-à-coup sa lumière sur le bois, l'océan et les armées. La terre paraît embrasée du feu des casques et des lances ; les instruments guerriers sonnent l'air antique de Jules-César partant pour les Gaules. La rage s'empare de tous les cœurs ; les yeux roulent du sang, la main frémit sur l'épée. Les chevaux se cabrent, creusent l'arène, secouent leur crinière, frappent de leur bouche écumante leur poitrine enflammée, ou lèvent vers le ciel leurs naseaux brûlants pour respirer les sons belliqueux. Les Romains commencent le chant de Probus.

CHATEAUBRIAND.

II.

Grammatical Questions.

1. Give the primitive tenses of the following verbs :—*aller, concevoir, croire, prendre.*
2. Give the different meaning of the following words as they are short or long :—*ăcre, ācre, tăche, tâche, cŏte, côte, jĕune, jeûne.*
3. Give some examples to show the difference of meaning of the verbs, *oublier, manquer, défier,* according to their being followed by the preposition *de* or the preposition *à.*
4. Elle s'est *senti* frapper ; puis elle s'est *sentie* mourir. Why does the past participle, which is invariable in the first sentence, agree in the latter one ?
5. Je prendrai un domestique qui *sache* lire—Je prendrai un domestique qui *sait* lire. Account for the use of the subjunctive mood in the first sentence, and the use of the indicative in the latter one.

III.

Essai.

A.—Faites ressortir en quelques mots ce qu'il y a d'honorable et d'utile dans la profession des armes.

B.—Montrez que l'on attend d'un officier de tout autres qualités que celles que l'on attend d'un simple soldat.

IV.

Translate into French :—

From a child Surajah Dowlah had hated the English. It was his whim to do so, and his whims were never opposed. He had also formed a very exaggerated notion of the wealth which might be obtained by plundering them ; and his feeble and uncultivated mind was incapable of perceiving that the riches of Calcutta, had they even been greater than he imagined, would not compensate him for what he must lose, if the European trade, of which Bengal was the chief seat, should be

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driven by his violence to some other quarter. Pretexts for a quarrel were readily found. The English, in expectation of a war with France, had begun to fortify their settlement without special permission from the Nabob. A rich native, whom he longed to plunder, had taken refuge at Calcutta, and had not been delivered up. On such grounds as these, Surajah Dowlah marched with a great army against Fort William.

Macaulay.

Passage for Dictation :—

On croyait entendre gronder le canon ; nous écoutions en marchant de quel côté le combat s'engageait, mais, à l'exception de quelques tirailleurs que les Russes avaient détachés de l'avant-garde, le ciel seul se montra notre ennemi. En effet, à peine l'Empereur avait-il passé le fleuve, qu'un bruit sourd avait agité l'air ; bientôt le vent nous apporta les sinistres roulements du tonnerre ; ce ciel menaçant, cette terre sans abri, nous attrista ; quelques-uns même, qui s'étaient montrés naguère enthousiastes en furent effrayés comme d'un funeste présage ; ils crurent que ces nuages enflammées, qui s'étaient amoncelées sur nos têtes s'abaissaient sur cette terre pour nous en défendre l'entrée.

GERMAN.

Saturday, 21st May 1870. 12 to 2 P.M.

Translate into English :—

Maria Stuart legte ſich zur gewöhnlichen Stunde zum Schlafe nieder und ſchlief einige Stunden ſehr ruhig: den übrigen Theil der Nacht brachte ſie mit Religionsübungen zu. Gegen Morgen zog ſie ein ſammtnes Trauerkleid an, und ſchmückte ſich mit einer Sorgfalt, die man lange nicht mehr an ihr bemerkt hatte. Um acht Uhr trat der Oberrichter und ſein Begleiter in ihr Zimmer: ſie erhob ſich ſogleich und folgte ihm, auf zwei von Paulet's Leuten gelehnt, weil eine Schwäche in den Gliedern ihr ſeit einiger Zeit das Gehen erſchwerte, in den Saal, wo das Todesurtheil vollzogen werden ſollte. Sir Andrew Melvil, ihr Haushofmeiſter und alter Diener, warf ſich, von Schmerz und Verzweiflung zerriſſen, zu ihren Füßen nieder und ſtammelte einige Worte des Jammers. „Höre auf zu weinen," rief ihm die Königin zu, „guter Melvil; hier iſt volle Urſache „zur Fröhligkeit: denn heute wird Maria Stuart von allen „ihren Leiden befreit: die Welt iſt eine Wohnſtätte des Jam„mers, ſo reich an Elend, daß ein ganzes Meer von Thränen „nicht hinreichte, es zu beweinen. Ich ſterbe mit der Ueberzeu„gung, meiner Religion getreu geblieben zu ſein und meinem „Königreiche nichts von ſeinen Rechten und Vortheilen vergeben „zu haben. Sage dies meinem Sohne! Der Himmel verzeihe „allen denen, die ſo lange nach meinem Blute dürſteten!" Das Zimmer war gedrängt voll Menſchen, welche das außerordentliche Schauſpiel herbeigezogen hatte, und welche der Kontraſt zwiſchen ſo viel großen und liebenswurdigen Eigenſchaften und einem ſo jammervollen Ende, zur innigſten Bewunderung und zur tiefſten Wehmuth hinriß.

DIRECT COMMISSIONS, MAY 1870.

Translate into German:—

Barbara Mowbray bound her eyes with a handkerchief. "Adieu!" she said, smiling for the last time and waving her hand to them; "Adieu, au revoir!" They stepped back from off the scaffold and left her alone. On her knees she repeated a psalm. When the psalm was finished she felt for the block, and laying down her head muttered: "To thy hand, O Lord, I commend my soul." The hard wood seemed to hurt her, for she placed her hands under her neck. The executioners gently removed them, lest they should deaden the blow, and then one of them holding her slightly, the other raised the axe and struck. The blow fell on the knot of the handkerchief, and scarcely broke the skin, She neither spoke nor moved. He struck again; this time effectively. "So perish all enemies of the Queen," said the Dean of Peterborough. A loud Amen ran over the hall. "Such end," said the Earl of Kent rising and standing over the body, "to the Queen's and the Gospel's enemies." Orders had been given that everything she had worn should be immediately destroyed, that no relics should be carried off to work imaginary miracles.

Grammatical Questions.

1. Give the nominative plural of Engel, Auge, Amt, Ei, Fuß, Mineral.
2. Give some nouns substantive formed with the suffixes em, ig, in ling, rich, ſam, and state their gender.
3. Give the 1st person singular indicative of the perfect of treffen ſterben, ſein, thun, ſitzen, ſchlafen.
4. Give the dative, singular and plural, of Ich armer Mann.
5. What is the difference between gehen and begehen, ſchreiben and beſchreiben, ſuchen and beſuchen, kennen and bekennen, ſchenken and beſchenken.

Essay.

Write an essay on "The Dangers of Travelling."

Dictation:—

Wir waren eben im Begriff unſer Frühſtück einzunehmen, als wir aus der Ferne die erſten Schüſſe hörten. Anfangs glaubten wir, ſie kämen aus unſerm eigenen Lager, und wollten uns in unſerer Mahlzeit nicht ſtören laſſen. Bald aber erſchollen die Signale der Trompeten. Adjutanten ritten in geſtreckter Carriere durch das Lager, der General an der Spitze ſeines Stabes folgte bald nach. Es war nur zu klar, daß die Feinde während der Nacht einen Eilmarſch gemacht hatten, wie er ſelten in der Geſchichte vorgekommen iſt, und daß ſeine Vorpoſten bereits auf dem andern Ufer des Fluſſes ſtanden. Die letzten Brückenbogen waren noch nicht abgebrochen, und es kam Alles darauf an, daß dieß noch zur erſten Zeit geſchehen könne.

DIRECT COMMISSIONS, MAY 1870.

HISTORY AND GEOGRAPHY.

Tuesday, 17th May 1870. 3 P.M. to 6 P.M.

(*It is possible to obtain full marks by answering eight questions.*)

1. State briefly the causes of the quarrels in which William the Conqueror, Henry III., and Richard II. were involved with their subjects.
2. What parts of England were most infested by the Danes? Were any districts permanently occupied by them?
3. Enumerate the principal English possessions in France. Which of them were gained by arms, and which by descent?
4. Mention persons who pretended to the Crown, or were accused of pretending to it, in the reigns of Henry VIII. and his daughters.
5. What events in Irish history are connected with the names of Shan O'Neal, Oliver Cromwell, Schomberg, Grattan, and Castlereagh?
6. Name the chief Cavalier and Roundhead leaders. Were there at the same period any moderate statesmen of influence?
7. Give some account of distinguished persons in the 16th and 17th centuries belonging to the families of Hyde, Cecil, and Villiers.
8. Sketch the characters of Marlborough, Bolingbroke, Walpole, and Chatham.
9. Describe the course of the Seven Years War.
10. Describe very briefly the progress of British dominion in India since Clive.
11. Draw a map of the North American continent. Mark the situations of the chief towns by asterisks (*), and the directions of the great rivers by lines. Write the names near the asterisks and lines.
12. Draw a similar map of the European continent.
13. On what occasions did Corinth, Phocis, Platææ, and Thebes take a prominent part in Greek affairs?
14. Describe the careers of Pisistratus, Pericles, Lysander, and Philip of Macedon.
15. Describe the situations of Ithome, Epidamnos, Mycale, the Granicus, Actium, the Thrasymene Lake, the Capitol, and Utica, and mention any memorable events of which they were the scenes.
16. What were the main subjects of controversy between the Patrician and Plebeian Orders at Rome?
17. State briefly the origin and results of the Jugurthine, Mithridatic, and Social Wars.

NATURAL SCIENCES.

DIRECT COMMISSIONS, MAY 1870.

Saturday, 21st May 1870. 4 P.M. to 6 P.M.

1. Mention some of the practical advantages of a knowledge of geology.
2. Define the terms porphyry, amygdaloid, slate, shale, conglomerate, breccia, as used to denote special states or conditions of rocks.
3. What are the distinguishing characteristics of rocks produced, 1st by sedimentary, 2nd by igneous agency?
4. What are the three methods of determining the relative ages of stratified rocks?
5. What are fossils? How are they used in determining the age of rocks and the conditions under which they were deposited?
6. What reason is there for supposing that the plants forming the coal of the coal measures grew, for the most part, on a land-surface?
7. Explain the origin of springs. How do you account for hot springs like those of Bath?
8. What are bone caves? In what rocks are they most common, and under what conditions do you suppose them to have been formed?
9. What is a glacier? What are the signs left by glaciers after they themselves have disappeared.
10. Describe the principal changes produced in rock-masses by metamorphism, and the agencies to which such changes are supposed to be due.

EXPERIMENTAL SCIENCES.

Saturday, 21st May 1870. 10 A.M. to 12 M.

[N.B.—*Not more than* ten *of the following questions are to be answered.*]

1. Explain why mercury is used in preference to water for filling thermometers. Describe the mode of testing the accuracy of the boiling point of a common thermometer.
2. If a vessel of water be surrounded with ice, the water will not in general be thereby frozen, but if salt be mixed with the ice the water will be frozen; explain this, and give some other examples in illustration of the same principle.
3. Show how the formation of aqueous vapour, its diffusion through the atmosphere and precipitation again as rain, all tend towards an equalization of the temperature of different regions.
4. Explain, by examples, the difference between conduction and convection of heat. If a delicate thermometer be applied to one end of an iron bar and a lump of ice to the other, the thermometer indicates a fall of temperature, trace how this is brought about.
5. A bright silver vessel of hot water and a black iron vessel of mercury at the same temperature are brought into a cold room; state which will cool more rapidly, and give the laws on which

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your answer depends. If they are near one another show whether the cooling of both will, at first, be equally retarded.

6. Describe the mode of preparing and collecting hydrogen, and of burning it with safety; and explain the chemistry of the same. By what law is it that hydrogen escapes more quickly through a small opening in a bag containing it than any other gas?
7. Give an account of the preparation of nitric acid, and of the chemistry of the process. By what characters can nitric acid be distinguished from other acids such as sulphuric and hydrochloric acids?
8. What is the composition sulphuretted hydrogen? Explain how it is prepared, and describe its chief characters. What is its chemical action with silver-nitrate and with chlorine respectively?
9. Show how the action of sodium carbonate on sulphuric acid may be used to determine the strength of a solution of sulphuric acid in water, stating the law on which it depends. What weight of sodium carbonate is required for 693 grains of the most concentrated oil of vitriol?

($C : O : S : Na :: 12 : 16 : 32 : 23$).

10. Whence is iodine obtained? How can you separate it from sodium iodide? By what characters can you recognise it? In what respects does it resemble chlorine?
11. Explain what is meant by insulating a conductor in electricity, and describe some method of attaining this object. Explain why no conductor will retain a charge indefinitely however carefully it it may be insulated.
12. How do you account for the fact that an electrified glass rod will attract small pieces of tin foil or paper, but will not attract so well small pieces of sulphur or sealing wax unless they have been previously rubbed, and then they will adhere to the glass much longer than the tin foil?
13. Explain the essential construction of a condenser. State the law which regulates the striking distances of leyden jars charged singly or in batteries.
14. If you are within reach of a telegraph wire how can you tell whether a current is passing in it, and if so in which direction it is going? If a loop of fine wire be attached by its ends to two points in a telegraph wire what is the law which determines the portion of the current which will traverse the loop?
15. Describe Daniell's constant cell, and explain how constancy is attained by it. Explain the advantage of having the plates as close together as possible.
16. Describe the structure of an electro-magnet. Do you prefer a battery of many small cells or one large one for working it, and for what reasons?
17. Define the magnetic meridian. In what respect does the action of the earth on a magnetic needle differ from that of a large magnet underneath the needle? A bar magnet is placed on a table and forms the diameter of a circle, and a small compass is placed at different points of the circumference in succession; show by a diagram the different positions the needle will assume, and explain the reasons for them.

Direct Commissions, May 1870.

DRAWING.

Friday, 20th May 1870. 3 P.M. to 6 P.M.

Free Hand Drawing.

[*No instruments are allowed.*]

1. Copy the lithographed example placed before you.
2. Copy the whole or a portion of the photograph placed before you.

Geometrical Drawing.

[*Written descriptions of the processes employed are not required, but the construction of the problems is to be indicated by dotted lines. The whole of the work is to be carefully inked in.*]

1. Divide a line five inches long into six equal parts, by construction.
2. Describe a circle with a radius of 1·6 inches, and inscribe in it 3 equal circles, each touching the circumscribing circle and the other two inscribed circles.
3. Find by construction and state the smallest angle of the triangle whose sides are 2 inches, $2\frac{1}{3}$ inches, and $2\frac{2}{3}$ inches in length respectively.
4. Draw a triangle having one angle equal to 55°, and the two sides containing this angle equal to $1\frac{2}{3}$ and $2\frac{1}{4}$ inches respectively. Find the centres of its inscribed and circumscribing circles.
5. Draw 9 parallel lines at $\frac{1}{4}$ inch apart, and 9 others at right angles to the first lines and at the same distance apart.
6. Construct a right line figure from the following conditions :—

The side AB = 2 inches	The angle ABC = 120°
BC = 1·75	BCD = 90°
CD = 2·2	CDE = 120°
DE = 1·2	

Ascertain and state the length of the remaining side EA and the size of the angles DEA, EAB.

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2 (C.) EXAMINATION FOR DIRECT COMMISSIONS, MAY 1870.

TABLE OF MARKS.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS who were examined at Burlington Gardens, on May 1870, and subsequent days.

SUCCESSFUL CANDIDATES.

Number.		Name.	NUMBER OF MARKS OBTAINED.															
			Mathematics.							Classics.						Drawing.		
			Obligatory.															
In Order of Merit.	In Examination.		Arithmetic.	Euclid.	Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum	500	700		1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	600		
		Minimum	200			400	—	200	200	333	266	200	200	200	200	100		1,500
1	55	Railston; Henry Edward	462	588		1,050	1,520	600	—	705	—	1,008	610	—	—	—	—	5,493
2	98	Gough; Hugh George (Hon.)	380	655		1,035	750	710	—	938	605	626	780	—	—	—	—	5,444
3	95	Gunner; William Heny Ridge	500	607		1,107	1,010	505	610	1,206	595	226	—	—	—	—	—	5,259
4	44	Rothney; Alexander Erskine	390	700		1,090	1,990	365	[110]	960	—	565	—	—	—	—	—	4,970
5	79	Allen; Griffith	368	543		911	1,350	485	—	989	607	271	—	—	—	220	15	4,848
6	25	Rich; Henry Ross	470	588		1,058	1,280	520	—	675	—	413	—	—	820	—	—	4,766
7	81	Craven; Alfred Eugene	490	600		1,090	1,710	430	445	—	—	779	—	—	—	160	75	4,689
8	148	Davies; Henry Hanbury	498	580		1,078	1,370	610	770	—	—	410	410	—	—	—	—	4,648
9	141	Randolph; Edmund	240	525		765	1,165	485	705	679	—	625	—	—	—	—	—	4,424

*** The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																
			Mathematics.					English.	History and Geography.	Classics.		French.	German.	Natural Sciences.	Experimental Sciences.	Drawing.		Total.
			Obligatory.				Optional.											
In Order of Merit.	In Examination.		Arithmetic.	Euclid.	Algebra.	Total.				Latin.	Greek.					Geometrical.	Freehand.	
		Maximum - - - - -	500	700		1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	600		
		Minimum - - - - -	200			400	—	200	200	333	266	200	200	200	200	100		1,500
10	147	Fawkes; Reginald - - - - -	426	649		1,075	1,200	475	445	673	453	[115]	—	—	—	—	—	4,321
11	54	Lowth; Frank Robert - - - - -	393	650		1,043	1,580	405	270	—	—	736	—	—	—	130	150	4,314
12	73	Gardner; Allen - - - - -	390	600		990	1,340	405	530	540	—	445	—	—	—	—	—	4,250
13	106	Ossulston; Lord - - - - -	328	430		758	530	575	300	1,117	554	383	—	—	—	—	—	4,217
14	15	Flood; Robert Thomas Harford Harford -	403	532		935	504	545	525	773	283	541	—	—	—	—	—	4,106
15	128	Gaisford; Horace Charles - - - -	352	666		1,018	180	545	205	1,072	503	558	—	—	—	—	—	4,081
16	130	Piercy; John Morpott - - - - -	470	579		1,049	1,320	415	—	775	[133]	280	—	—	—	140	20	3,999
17	9	Tilly; Justice Chapman - - - - -	453	550		1,003	1,040	360	200	—	—	758	—	—	600	—	—	3,961
18	13	Murphy; George FitzGerald - - - -	373	563		936	510	490	385	819	—	475	—	—	—	—	—	3,645
19	71	Whittle; Charles Edward - - - -	448	656		1,104	1,480	380	300	—	—	[51]	—	—	335	—	—	3,599
20	89	Bonham; Henry Walter Musgrave - - -	482	424		906	—	410	430	922	575	266	—	—	—	—	—	3,509
21	67	Temple; Richard Carnac - - - -	298	588		886	420	560	—	865	476	—	—	—	—	190	60	3,457
22	110	Pakenham-Mahon; Henry - - - -	434	466		900	270	330	405	713	—	816	—	—	—	—	—	3,434
23	112	Vivian; Guy Frederick - - - - -	474	545		1,019	550	470	280	495	290	325	—	—	—	—	—	3,429
24	125	Scott; Henry Richardson - - - -	340	592		932	430	465	—	736	395	[153]	470	—	—	—	—	3,428
25	118	Campden; Viscount - - - - -	419	465		884	36	660	275	623	276	600	—	—	—	—	—	3,354
26	97	Colvile; Henry Edward - - - -	353	302		655	—	450	—	—	—	329	—	960	920	—	—	3,314
27	66	Wardlaw-Ramsay; Robert George - - -	378	598		976	820	315	—	—	—	372	—	—	430	210	170	3,293
28	136	Ricardo; Francis Cecil - - - - -	498	572		1,070	390	545	205	700	327	[121]	—	—	—	—	—	3,237
29	70	Halliday; Francis Tollemache - - - -	403	516		919	700	595	205	793	[189]	[83]	—	—	—	—	—	3,212
30	92	Goff; Joseph Granville Stuart - - - -	327	328		655	40	695	460	851	269	230	—	—	—	—	—	3,200
31	153	Ogilby; Claude William Leslie - - - -	418	610		1,028	380	555	480	438	—	233	—	—	—	—	—	3,114

*** The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.															
			Mathematics.							Classics.						Drawing.		
			Obligatory.					English.	History and Geography.			French.	German.	Natural Sciences.	Experimental Sciences.			Total.
In Order of Merit.	In Examination.		Arithmetic.	Euclid.	Algebra.	Total.	Optional.			Latin.	Greek.					Geometrical.	Freehand.	
		Maximum - - - - -	500	700		1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	600		
		Minimum - - - - -	200			400	—	200	200	333	266	200	200	200	200	100		1,500
32	105	Legge; Henry Charles (Hon.) - - - -	418	460		878	—	480	275	743	304	430	—	—	—	—	—	3,110
33	156	Toler; George John Scarlett - - - -	325	342		667	—	600	410	638	284	508	—	—	—	—	—	3,107
34	129	Aldenburg-Bentinck; Charles Renaud Adalbert -	304	326		630	20	560	—	373	—	575	930	—	—	—	—	3,088
35	56	Pringle; Andrew - - - - -	400	436		836	40	535	200	913	492	[193]	—	—	—	—	—	3,016
36	57	Strachan; James Arthur - - - -	363	588		951	500	365	205	551	443	—	—	—	—	—	—	3,015
37	69	Boxwell; William - - - - -	258	304		562	—	595	—	629	454	205	560	—	—	—	—	3,005
38	19	Reynolds; Arthur Sullivan - - - -	438	254		692	—	645	315	679	331	325	—	—	—	—	—	2,987
39	72	Herbert; Ivor John Caradoc - - - -	267	395		662	135	385	500	587	[206]	685	—	—	—	—	—	2,954
40	1	Howden-Kellie; Robert - - - -	313	528		841	220	485	440	659	—	—	—	—	305	—	—	2,950
41	42	McKean; Alexander Chalmers - - - -	328	267		595	—	455	—	—	—	971	—	655	—	140	105	2,921
42	49	Sherard; Robert Castel - - - -	283	230		513	—	420	200	829	630	327	—	—	—	—	—	2,919
43	40	Owen; William Charles - - - -	341	561		902	226	420	535	—	—	—	350	—	—	210	160	2,803
44	31	Blake; Arthur Maurice - - - -	273	185		458	—	405	450	603	280	598	—	—	—	—	—	2,794
45	104	Hawkins; Clement William - - - -	444	650		1,094	850	470	—	—	—	[85]	—	355	[145]	—	—	2,769
46	77	Bowles; Henry Cator - - - - -	265	408		673	544	270	210	—	—	260	740	—	—	—	—	2,697
47	91	Rowlandson; John - - - - -	450	695		1,145	820	290	415	[289]	—	—	—	—	—	—	—	2,670
48	47	Campbell; Ronald Rivers Farquhard - -	286	314		600	—	460	245	—	—	504	840	—	—	—	—	2,649
49	4	Palmes; Bryan - - - - - -	338	338		676	130	450	700	—	—	398	—	—	—	190	100	2,644
50	33	Turnor; Reginald Charles - - - -	468	570		1,038	—	330	[160]	—	—	268	930	—	—	—	—	2,566
51	45	Booth; Lionel Edward Blakeney - - -	498	570		1,068	560	390	290	—	—	[108]	—	—	—	110	140	2,558
52	5	Scott-Chisholme; John James - - -	288	407		695	20	435	—	426	—	300	680	—	—	—	—	2,556
53	135	Oakes; Orbell Henry - - - - -	448	534		982	450	240	235	—	—	405	—	—	—	190	35	2,537

*** The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS.—SUCCESSFUL CANDIDATES—*cont.*

DIRECT COMMISSIONS, MAY 1870.

Number.		Name.	NUMBER OF MARKS OBTAINED.															
			Mathematics.					English.	History and Geography.	Classics.		French.	German.	Natural Sciences.	Experimental Sciences.	Drawing.		Total.
In Order of Merit.	In Examination.		Obligatory.			Optional.				Latin.	Greek.					Geometrical.	Freehand.	
			Arithmetic.	Euclid.	Algebra.	Total.												
		Maximum - - -	500	700		1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	600		1,500
		Minimum - - -	200			400	—	200	200	333	266	200	200	200	200	100		
54	113	Wilson; Belford Randolph - -	463	254		717	—	320	350	533	355	252	—	—	—	—	—	2,527
55	115	Hutton; Villiers - - -	394	386		780	170	380	266	662	271	[70]	—	—	—	—	—	2,523
56	61	Case; Henry Ashton - -	404	304		708	—	510	345	624	[68]	—	—	—	200	—	—	2,447
57	64	Campbell; Edward Parker -	490	608		1,098	100	310	—	458	—	465	—	—	—	—	[60]	2,421
58	108	Cameron; Saumarez William -	414	381		795	120	330	225	—	—	360	500	—	—	—	—	2,329
59	46	Standly; Thomas - - -	428	550		978	—	375	435	417	—	—	—	—	—	—	110	2,315
60	111	Constable; Robert - - -	355	539		894	440	310	300	[279]	[123]	240	—	—	—	—	—	2,283
61	6	Dineer; Charles Reagan - -	283	538		821	720	220	[150]	—	—	230	—	—	—	180	70	2,241
62	127	Digby; Everard Charles (Hon.)	320	573		893	515	325	—	[166]	—	[148]	470	—	—	—	—	2,203
63	17	Dawnay; Eustace Henry (Hon.)	378	487		865	—	380	—	638	305	[35]	—	—	—	—	—	2,148
64	62	Mackinnon; William Henry -	321	334		655	—	435	[100]	651	[215]	404	—	—	—	—	—	2,145
65	48	Dick-Cunyngham; William Henry	500	490		990	100	360	215	471	—	[85]	—	—	—	—	—	2,136
66	11	Main; Francis Ingram - -	318	86		404	—	660	335	662	[90]	[70]	—	—	—	—	—	2,061
67	26	Fleeming; Cornwallis (Hon.) -	331	187		518	—	345	280	683	—	212	480	—	—	—	—	2,043
68	146	Chambers; Ennis Dundas - -	450	483		933	—	370	230	—	—	—	—	884	—	—	[60]	2,013
69	22	Robbins; George Blakemore -	362	220		582	—	280	205	[217]	—	—	—	—	—	—	—	1,951
70	117	Tidswell; Benjamin Ingham -	395	410		805	90	350	350	339	[122]	[106]	—	—	—	—	—	1,934
71	88	Webster; Godfrey Fox - -	372	288		660	120	265	215	414	—	258	—	—	—	—	—	1,932
72	124	Bailey; Henry - - -	380	386		766	—	360	[170]	—	—	210	590	—	—	—	—	1,926
73	24	Johnson; George Charles John	361	456		817	250	210	200	—	—	—	—	—	295	60	70	1,902
74	93	Hussey; Anthony Strong - -	375	485		860	60	440	235	—	—	200	—	—	—	—	100	1,895

*** The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																
			Mathematics.							Classics.						Drawing.		
			Obligatory.															
In Order of Merit.	In Examination.		Arithmetic.	Euclid.	Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum - - - - - -	500	700		1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	600		
		Minimum - - - - - -	200			400	—	200	200	333	266	200	200	200	200	100		1,500
75	109	Wiseman ; John Francis - - - - -	340	195		535	—	275	530	507	—	[50]	—	—	—	—	—	1,847
76	43	Home-Purves ; Charles Hyde - - - -	260	283		543	—	280	200	424	—	348	—	—	—	—	—	1,795
77	114	Barlow ; Norman Bellas - - - - -	415	340		755	160	365	—	—	—	[51]	—	—	410	—	100	1,790
78	28	Lloyd ; Arthyr Grey - - - - -	230	396		626	—	415	270	457	[161]	—	—	—	—	—	[50]	1,768
79	87	Dawson ; Robert Arthur - - - - -	451	550		1,001	220	205	275	—	—	—	—	—	—	—	—	1,701
80	83	Cochrane ; Lord - - - - - -	314	403		717	10	290	280	396	—	[178]	—	—	—	—	—	1,693
81	123	Gaskell ; John Francis Upton - - - -	483	580		1,063	120	205	300	[304]	—	[140]	—	—	—	—	—	1,688
82	37	Stanhope ; Lincoln Edwin (Hon.) - - -	307	360		667	100	200	—	—	—	212	—	—	500	—	—	1,679
83	119	Master ; Legh Hoskins - - - - -	455	356		811	30	285	[105]	543	[83]	[64]	—	—	—	—	—	1,669
84	154	Smythe ; David Murray - - - - -	357	510		867	—	380	400	[247]	[49]	[150]	—	—	—	—	—	1,647
85	144	Mercer ; Arthur - - - - - -	483	347		830	278	285	250	—	—	[0]	—	—	—	—	—	1,643
86	134	Kay ; George Henry - - - - -	318	638		956	180	295	200	—	—	[60]	[140]	—	—	—	—	1,631
87	120	Bain ; John Dove - - - - -	396	150		546	—	520	445	—	—	[58]	—	—	—	—	110	1,621
88	2	Alexander ; Granville Henry Jackson - -	348	281		629	100	290	280	—	—	321	—	—	—	—	[85]	1,620
89	39	Cuffe ; Otway Frederick Seymour (Hon.) - -	289	253		542	120	425	—	416	[29]	[180]	—	—	—	60	50	1,613
90	53	Dawson ; Vesey John - - - - -	303	403		706	100	275	[130]	524	[95]	[42]	—	—	—	—	—	1,605
91	145	Sherston ; Charles Davis - - - - -	378	270		648	20	435	—	478	[46]	[161]	—	—	—	[55]	[30]	1,581
92	80	Straghan ; William Gibbs - - - - -	500	358		858	80	200	205	—	—	[8]	—	—	—	190	25	1,558
93	151	O'Brien ; Joseph Henry - - - - -	310	453		763	—	200	[125]	—	—	[80]	—	—	570	—	—	1,533
94	7	Phipps ; Henry George Russel (Lord) - -	298	408		706	20	300	[130]	—	—	—	—	—	320	110	60	1,516
95	137	Mackinnon ; Lionel Dudley - - - -	315	250		565	—	340	200	[301]	—	395	—	—	—	—	—	1,500

*** The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.															
			Mathematics.							Classics.						Drawing.		
			Obligatory.					English.	History and Geography.			French.	German.	Natural Sciences.	Experimental Sciences.			Total.
In Order of Merit.	In Examination.		Arithmetic.	Euclid.	Algebra.	Total.	Optional.			Latin.	Greek.					Geometrical.	Freehand.	
		Maximum - - - - - -	500	700		1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	600		
		Minimum - - - - - -	200			400	—	200	200	333	266	200	200	200	200	100		1,500
		QUEEN'S CADETS.																
1	35	Champion ; Arnold Hyde Noel Urquhart - -	331	520		851	570	460	—	—	—	318	510	—	710	—	—	3,419
2	51	Johnstone-Bourchier ; Charles Le Gendre - -	468	460		928	376	560	210	645	—	[138]	—	—	—	—	—	2,719
3	68	Saunders ; Herbert Richard - - - -	373	535		908	480	200	—	—	—	210	—	—	330	—	—	2,128
		INDIAN CADET.																
1	100	Fullerton ; John Davidson - - - - -	467	670		1,137	1,438	475	440	—	—	[131]	—	—	—	260	185	3,935
		UNSUCCESSFUL CANDIDATES.																
96	—	- - - - - - -	203	105		[308]	—	295	295	859	—	220	—	—	—	—	—	1,669
97	—	- - - - - - -	230	329		559	—	255	295	367	—	[155]	—	—	—	—	—	1,476
98	—	- - - - - - -	274	516		790	280	200	200	—	—	[89]	—	—	—	—	[50]	1,470
99	—	- - - - - - -	413	295		708	150	295	—	[165]	—	[47]	—	—	315	—	—	1,468
100	—	- - - - - - -	360	128		488	90	265	[100]	—	—	[165]	—	614	—	—	—	1,457
101	—	- - - - - - -	224	181		405	—	395	235	391	[114]	[45]	—	—	—	—	—	1,426
102	—	- - - - - - -	280	353		633	350	295	—	[302]	—	[24]	—	—	—	90	55	1,423
103	—	- - - - - - -	318	200		518	80	265	245	[260]	—	—	—	—	305	—	—	1,413
104	—	- - - - - - -	375	243		618	126	305	—	362	[96]	[55]	—	—	[35]	—	—	1,411
105	—	- - - - - - -	441	495		936	100	335	[160]	—	—	[138]	—	—	—	—	[40]	1,371
106	—	- - - - - - -	262	507		769	200	200	200	—	—	[116]	—	—	—	[10]	—	1,369
107	—	- - - - - - -	333	363		696	126	260	280	[196]	—	[0]	—	—	—	—	—	1,362

*** The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS.—UNSUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																
			Mathematics.							Classics.						Drawing.		
			Obligatory.															
In Order of Merit.	In Examination.		Arithmetic.	Euclid.	Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum - - - - -	500	700		1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	600		
		Minimum - - - - -	200			400	—	200	200	333	266	200	200	200	200	100		1,500
108	—	- - - - - -	340	392		732	220	200	[160]	—	—	[42]	—	—	200	—	—	1,352
109	—	- - - - - -	448	337		785	240	320	[100]	[259]	—	[194]	—	—	—	—	—	1,345
110	—	- - - - - -	290	228		518	50	325	435	—	—	[26]	—	—	—	—	—	1,328
111	—	- - - - - -	215	186		401	30	330	[90]	—	—	282	—	—	—	—	230	1,273
112	—	- - - - - -	366	218		584	—	205	335	—	—	[93]	—	—	—	80	60	1,264
113	—	- - - - - -	323	425		748	—	290	225	[216]	—	[0]	—	—	—	—	—	1,263
114	—	- - - - - -	372	410		782	—	215	250	—	—	[40]	—	—	—	—	—	1,247
115	—	- - - - - -	218	360		578	170	285	200	—	—	[52]	—	—	—	—	—	1,233
116	—	- - - - - -	236	386		622	150	245	215	—	—	[39]	—	—	—	—	—	1,232
117	—	- - - - - -	331	285		616	—	235	[50]	344	[167]	[0]	—	—	—	—	—	1,195
118	—	- - - - - -	411	433		844	20	320	[155]	—	—	[66]	—	—	—	—	[10]	1,184
119	—	- - - - - -	209	35		[244]	[60]	210	340	—	—	622	—	—	—	[40]	[30]	1,172
120	—	- - - - - -	290	382		672	252	235	[175]	—	—	[10]	—	—	—	—	[40]	1,159
	—	- - - - - -	352	130		482	30	295	[0]	352	—	[40]	—	—	—	—	—	1,159
122	—	- - - - - -	202	396		598	65	280	205	—	—	[10]	—	—	—	—	[25]	1,148
123	—	- - - - - -	264	181		445	164	310	—	[306]	—	207	—	—	—	—	—	1,126
124	—	- - - - - -	239	300		539	40	250	250	[89]	—	[139]	—	—	—	—	—	1,079
125	—	- - - - - -	[136]	106		[242]	—	345	[40]	337	[95]	365	—	—	—	—	—	1,047
126	—	- - - - - -	280	141		421	—	270	305	[173]	—	[30]	—	—	—	—	—	996
127	—	- - - - - -	201	231		432	—	285	215	[285]	—	[30]	—	—	—	—	—	932
128	—	- - - - - -	323	248		571	132	225	[100]	—	—	—	—	—	—	—	[0]	928
129	—	- - - - - -	282	315		597	20	[100]	285	—	—	[28]	—	—	—	—	[90]	902

* The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS.—UNSUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.															
			Mathematics.							Classics.						Drawing.		
			Obligatory.															
In Order of Merit.	In Examination.		Arithmetic.	Euclid.	Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum - - -	500	700		1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	600		
		Minimum - - -	200			400	—	200	200	333	266	200	200	200	200	100		1,500
130	—	- - - - - -	241	136		[377]	—	275	—	445	—	[125]	—	—	—	140	35	895
131	—	- - - - - -	239	162		401	16	200	250	—	—	[10]	—	—	[160]	—	—	867
132	—	- - - - - -	263	107		[370]	—	245	[170]	—	—	250	—	—	360	—	—	855
133	—	- - - - - -	[127]	35		[162]	—	265	[155]	—	—	322	240	—	—	—	—	827
134	—	- - - - - -	242	266		508	10	200	[55]	—	—	[24]	—	—	—	[90]	—	718
135	—	- - - - - -	[154]	100		[254]	—	410	230	—	[153]	—	—	—	—	—	—	640
136	—	- - - - - -	255	63		[318]	[45]	245	[115]	360	—	[76]	—	—	—	—	—	605
137	—	- - - - - -	333	110		443	20	[95]	[65]	—	—	[0]	—	—	—	—	[60]	463
138	—	- - - - - -	208	115		[323]	—	250	—	[182]	—	[0]	—	—	—	130	70	450
139	—	- - - - - -	[130]	115		[245]	—	230	—	[42]	—	[130]	—	—	—	—	170	400
140	—	- - - - - -	[32]	0		[32]	—	[110]	[45]	—	—	—	—	230	—	—	—	230
141	—	- - - - - -	[126]	50		[176]	—	[110]	—	[54]	—	[40]	[10]	—	—	—	—	0
142	—	- - - - - -	[171]	269		[440]	[544]	[185]	—	—	—	[50]	—	—	[100]	[80]	[10]	0
		QUEEN'S CADETS.																
4	—	- - - - - -	293	145		438	—	200	210	[307]	—	[50]	—	—	—	—	—	848
5	—	- - - - - -	205	30		[235]	—	320	[175]	[278]	[61]	—	—	—	—	—	[20]	320
		INDIAN CADETS.																
2	—	- - - - - -	311	417		728	180	410	[100]	—	—	[0]	—	—	[185]	—	—	1,318
3	—	- - - - - -	220	418		638	—	365	210	—	—	[103]	—	—	—	—	—	1,213

*** The marks included in brackets are below the minimum, and are not counted in the total.

Royal Military Academy, Woolwich, July 1870.

3.—EXAMINATION FOR THE ROYAL MILITARY ACADEMY, WOOLWICH.

July 1870.

Regulations.

Horse Guards, 1st May 1868.

N.B.—All candidates for Commissions in the Royal Artillery and Royal Engineers are required to go through a course of instruction at the Royal Military Academy.

I. Competitive examinations for admission are held in London twice a year, in January and July. They are conducted by examiners appointed for the purpose, in the presence and under the superintendence of the Civil Service Commissioners.

The candidates must be between 16 and 19 years of age.

II. The admissions will be determined by the result of the examination, the subjects of which will be as follows, viz. :—

		Marks.
1. Mathematics	Pure: Section I. Arithmetic, algebra, Euclid, plane trigonometry - 2,000	
	Pure: Section II. Spherical trigonometry, elements of co-ordinate geometry, and of the differential and integral calculus * - 500	3,500
	Mixed :—Statics, Dynamics, and Hydrostatics - - - 1,000	
2. English language and composition - - -		1,000
3. History of England, its dependencies and colonies -		1,000
4. Geography (modern) - - - - -		1,000
5. Classics	Latin language - - - -	1,500
	Greek ditto - - - -	1,500
6. French language - - - - -		1,000
7. German ditto - - - - -		1,000
8. Hindustani ditto - - - - -		1,000

The examination in French, German and Hindustani will include writing from dictation.

9. Experimental sciences, *i.e.*, chemistry, heat, electricity, including magnetism - - - - -	1,000
10. Natural sciences, *i.e.*, mineralogy and geology - -	1,000
11. Drawing: Free-hand drawing of machinery, architectural, topographical, landscape, or figure subjects - - - -	1,000

Every candidate must qualify in geometrical drawing; *i.e.* drawing in ink, with accuracy, neatness, and to scale the several problems of Euclid. The standard of qualification in this subject is 100 marks, which must

* See Syllabus, p. 169.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

be gained out of a maximum of 300 nominally assigned to it. But the marks so gained will not count towards the general aggregate.

III. No candidate will be allowed to be examined in more than five subjects, of which one must be mathematics, and no one who does not obtain at least 700 marks in Section I. of pure mathematics, will be eligible for an appointment.

From the other subjects of examination, to which marks are assigned as above, each candidate may select any, not exceeding four in number, in which he desires to be examined. The rules for counting marks in such subjects are as follows :—

In all subjects carrying marks, except the 1st section of mathematics, in which 700 marks are required, one-sixth of the number allotted to each must be gained before they can be allowed to count.

In classics, the subject is divided into two sections as above, either or both of which the candidate may take up as one subject; but he will not be allowed to count the marks gained in either section unless they amount to one-sixth of the number allotted to it.

In either *French, German,* or *Hindustani,* every candidate will be required to obtain for qualification one-sixth of the maximum of marks, whether he takes it up as subjects in which he desires to compete or not.

It should be understood that, although only a small qualifying test has been imposed in respect to modern languages, a knowledge of them on admission will contribute greatly to a candidate's future success at the Royal Military Academy.

IV. The candidates are allowed to answer as many questions as the time allotted to the subject will permit.

V. No candidate will be admitted unless he obtain an aggregate of at least 2,500 marks.

VI. The successful candidates will remain under instruction for about two years and a half, or until they are sufficiently advanced in scientific knowledge to pass a satisfactory examination, and they will then be qualified to receive commissions in the Royal Artillery or Royal Engineers. If, however, they should be found unable to qualify themselves within three* years in their professional studies, or to acquire a sufficient proficiency in military exercises, or if at any time, by failure at the half-yearly examinations, it should appear improbable that they will ultimately succeed in qualifying for a Commission, they will be removed. Further, every cadet will be liable to be removed temporarily or permanently on the commission of any of those offences to which such penalty is awarded by the regulations of the Royal Military Academy.

VII. Each cadet on joining will be required to a pay a sum 25*l.* to cover the expense of uniform, books, &c., and to bring with him the articles of clothing of which he will receive notice, and which must afterwards be kept up at his own expense. He will also be required to pay a contribution of 62*l.* 10*s.*, payable in advance, for each half year of the time during which he remains under instruction; and a deposit of 5*l.* into the hands of the paymaster on account for contingent expenses, which latter sum he will be required to make up on returning to the Royal Military Academy after each vacation, to cover any unavoidable expense that may be incurred on his account during the ensuing half year.

* To be counted from the commencement of the term in which a cadet joins, and no extension of this period will be granted on account of absence from the Academy from any cause except illness. Cases of protracted absence on account of illness will be specially considered on the report of the medical officer of the Academy.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

The annual contributions, however, for sons and orphans of naval and military officers will be regulated at the following rates, as heretofore :—

	£
For sons of admirals and of generals having regiments	80
For sons of generals without regiments	70
For sons of captains and commanders of the navy, and of colonels and regimental field officers of the army	60
For sons of all officers of the army and navy under the above ranks	40
For sons of officers of the army and navy who have died in the service, and whose families are proved to be left in pecuniary distress	20

The sons of general officers who are paid only on their Commissions as field officers will pay the same contribution as the sons of field officers.

Officers who have sold their commissions are in this classification reckoned as private gentlemen.

The cases of officers who have retired voluntarily upon half pay previous to having served 25 years on full pay will be specially considered.

Officers who retire on half-pay after 25 years' service on full pay will be entitled to be classified for payment with the rank they last served in.

The sons of officers of the civil departments of the army and navy, of officers of the permanent militia staff, and of adjutants of the volunteer force, are admissible to the Academy upon the same terms as those prescribed for naval and military officers.

The sons of Indian naval and military officers will be admitted on the same terms as the sons of officers of the Queen's service.

	£
The sons of professors at the staff and royal military colleges, at the Royal Military Academy, and at the Royal Military College, Addiscombe	60
The sons of masters at the above institutions	40

If a cadet be absent a whole term in consequence of sickness or rustication, a payment of 10*l.* will be required for the privilege of his name being kept on the rolls of the establishment, and for a vacancy being guaranteed at the commencement of the next term.

If a cadet be absent from sickness during a portion of the term, his pay will continue to be issued and credited to his account ; but no refund of the contribution will be permitted.

If rusticated during a term, the daily pay will cease from the date on which the cadet is sent away, and the contribution made for the half-year will be forfeited.

In the case of a cadet of the orphan class, whose annual contribution is only 20*l.*, the amount to be paid when absence extends over a whole term is to be determined by the Secretary of State.

VIII. Any gentlemen who wishes to present himself at one of the half-yearly examinations must send in his name to the Military Secretary at the Horse Guards one month before the time of examination, forwarding with his application to be noted the following papers :—

1st. An extract from the register of his baptism,* or, in default of that, a declaration before a magistrate, taken by one of his parents, giving his exact age.

* When the register of baptism does not contain the date of birth it should be accompanied by a memorandum, signed by one of his parents or guardians, stating the day on which the candidate was born.

2nd. A certificate of good moral character, signed by a clergyman of the parish to which he belongs, and by the tutor or head of the school or college at which he has received his education for at least the two preceding years, or such other proof of good moral character as will be satisfactory to the Commander-in-Chief.

3rd. A statement of the subjects of examination in which (in addition to mathematics) he may desire to be examined.

A candidate who has been examined before, when he applies for leave to present himself again, will only be required to forward the list of subjects he selects, and a certificate from his tutor or the head of his school, &c., for the interval between the two examinations.

IX. The candidates will be inspected by military surgeons on the first day of the examination, in order that it may be ascertained that they are free from any bodily defects or ailments calculated to interfere with the performance of military duties.

Extreme short-sight, or any serious defect of vision, is regarded as a disqualification.

The responsible parent or guardian of every successful candidate, and the candidate himself, before he can be admitted as a cadet, will be required to sign respectively the following Declarations :—

Declaration by Cadet.

I do hereby declare that I have attentively considered Article VI. above quoted, of the regulations for admission to the Royal Military Academy, and I consent to abide by the same in every particular, as well as to observe and follow all such orders and directions as I shall from time to time receive from the Lieutenant-Governor or other officers or authorities of the Royal Military Academy. And I further hold myself bound to conform in every respect to Her Majesty's Regulations, and to the rules and discipline of the service.

Signature _____

Declaration by the Parent or Guardian.

I hereby declare that I consent to the admission of my (son or ward) to the Royal Military Academy on the foregoing conditions.

Signature _____

(Signed) W. F. FORSTER,
Military Secretary.

SYLLABUS OF EXAMINATION IN THE DIFFERENTIAL AND INTEGRAL CALCULUS.

Differential Calculus.

The meaning of differentiation.

The differentiation of elementary functions of one independent variable.

The theorems of Taylor and Maclaurin, with their applications.

The theory of maxima and minima, with its applications.

The equations to the tangents, normals, and asymptotes of plane curves.

The curvature of plane curves and their radii of curvature and evolutes.

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The differential co-efficients of the arcs and areas of plane curves to rectangular and polar co-ordinates, and of the surfaces and volumes of solids of revolution.

Integral Calculus.

The meaning of integration.
The integration of elementary functions.
The integration of rational fractions.
The determination of the lengths and areas of plane curves, and of the surfaces and volumes of solids of revolution.

EXAMINATION FOR ADMISSION TO THE ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

EXAMINATION PAPERS.

MATHEMATICS.

Tuesday, 5th July 1870. 10 A.M. to 1 P.M.

1. If building ground be bought for 15*s.* 9*d.* a square yard, what will be the cost of half an acre of such ground?

   The purchaser of the half acre builds a house upon it and lays out the ground at a further cost of 2,094*l.* 5*s.*, what rent per annum must he obtain so as to realize 9 per cent. on his whole outlay?

2. If 20 English navvies, each earning 3*s.* 6*d.* a day, can do the same piece of work in 15 days that it takes 28 foreign workmen, each earning three francs a day to complete in 20 days; taking the value of the franc at 10*d.*, determine which class of workmen it is most profitable to employ. If a piece of work done by navvies cost 3,000*l.* what would be the cost of the same work done by foreign workmen?

3. Reduce

$$\frac{97}{194} + \frac{291}{388}$$

$$\frac{485}{582} - \frac{291}{388}$$

   Divide 2·4*l.* by ·00625, and without using the common rule for the extraction of the square root, prove that $1\cdot8\dot{3}$ is the square root of $3\cdot3\dot{6}1$.

4. What is meant by the "course of exchange" between two countries?

   A merchant in New York wishes to remit to London 5,110 dollars, a dollar being equal to 4*s.* 6*d.* English, for what sum in English money must he draw his bill when bills *on* London are at a premium of $9\frac{1}{2}$ per cent.?

5. Investigate the rule for affixing the characteristics to the tabulated logarithms of numbers, whether they be whole numbers or decimals. Express $\log_{10}$ ·00001.

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Find by the aid of the tables—

(1.) $(\cdot 004725)^{\frac{2}{3}}$.

(2.) The sum of 12 terms of the series—

$$\left(1+\frac{2}{5}\right)+\left(1+\frac{2}{5}\right)^2+\left(1+\frac{2}{5}\right)^3+\text{ \&c.}$$

(3.) The number of years in which the amount of an annual sinking fund of five millions would pay off a national debt of 800 millions, allowing five per cent. compound interest.

6. Multiply $(x^3+2ax^2+3a^2x+a^3)$ by $(x^3+2ax^2-3a^2x-a^3)$.

Divide $(x^{-\frac{1}{2}}-y^2)$ by $(x^{-\frac{1}{4}}-y^{\frac{1}{2}})$.

7. Prove—

$$(x-a^2)+(x-b)^2+(x-c)^2+2\{(x-a)(x-b)+(x-a)(x-c)+(x-b)(x-c)\}$$
$$=9x^2-6x(a+b+c)+(a+b+c)^2.$$

If $(ay-bx)=(cx-az)=(bz-cy)$, prove $\frac{x}{a}=\frac{y}{b}=\frac{z}{c}$.

8. Solve the following equations:—

(1.) $$\frac{(x-3)(x-4)}{(x-7)}=\frac{(x-1)(x-2)}{(x-3)}.$$

(2.) $$\left.\begin{aligned} x+y+\frac{4x}{y}&=31\\ 2x+3y+\frac{4x}{y}&=49\end{aligned}\right\}$$

Solve the equation $x^3-8x^2+19x-12=0$ by transforming it into one whose roots are each less by unity than the roots of the given equation.

9. When are numbers in harmonical progression? 2, $\frac{4}{3}$, 1, are three consecutive terms of a harmonical progression, what are the terms immediately preceding and following them? If 3 arithmetic means be inserted between (a) and (b), and three harmonic means between (b) and (a), prove that the product of any two corresponding terms in each series is ab.

10. Assuming the form of the general term of the expansion of $(1+x)^n$ when (n) is a positive integer, show that the co-efficient of the $(n)^{\text{th}}$ term reckoned from the beginning of the series is equal to the coefficient of the $(n)^{\text{th}}$ term reckoned from the end.

Express the middle term of $\left(x-\frac{1}{x}\right)^{2n}$ with a denominator $(1.2.3\ldots n)^2$, and find the greatest term in the expansion of $\left(2-\frac{1}{2}\right)^{12}$.

11. If (k) be the co-efficient of (x) in the expansion of a^x, prove $k=(a-1)-\frac{1}{2}(a-1)^2+\frac{1}{3}(a-1)^3$, &c.

Find the series for $\log_e(1+x)$.

Prove $\log_e(n+1)=\log_e n+2\left\{\frac{1}{2n+1}+\frac{1}{3}\frac{1}{(2n+1)^3}+\text{ \&c.}\right\}$

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Given $\log_e 3 = 1{\cdot}0986$, obtain from the above series $\log_e^{\frac{1}{3}} 10$, and show how $\log_e 10$ connects the Napierian with the tabular logarithm of any number.

12. Express $\sqrt{N}$ as a continued fraction, where N is a whole number not a perfect square.

If (a) be the greatest integer in $\sqrt{N}$ show that $(2a)$ is the greatest quotient that will appear in the continued fraction.

Find $\sqrt{18}$ in the form of a continued fraction, and point out the recurring period of the quotients.

MATHEMATICS.

Wednesday, 6th July 1870. 10 A.M. to 1 P.M.

1. Define *parallel straight lines*, and *a parallelogram*.

The opposite sides of parallelograms are equal to one another.

2. When does a straight line touch a circle?

The straight line drawn at right angles to the diameter of a circle from the extremity of it, touches the circle.

3. If two triangles have one angle of the one equal to one angle of the other, and the sides about the equal angles proportionals, the triangles shall be equiangular, and have those angles equal which are opposite to the homologous sides.

Under what given circumstances does Euclid prove that two triangles will be similar?

4. When is a straight line at right angles to a plane, and when is one plane perpendicular to another?

From the same point in a given plane there cannot be two straight lines at right angles to the plane upon the same side of it.

5. If ABCD be a quadrilateral figure inscribed in a circle, and if it is bisected by its diameter BD, prove that AB : BC=CD : DA.

6. Write down without proof the value of sin 390°, tan (−240°), cos 495°.

Assuming the expression for tan (A+B) in terms of tan A and tan B, express tan 3A in terms of tan A.

If ABC be a triangle wherein C is a right angle, and if the straight line AD be drawn to meet BC in D, and to make the angle DAC to be a third part of the angle BAC, prove that CD is always less than a third part of CB.

7. What is meant by the *circular measure* of an angle?

If θ is the circular measure of an angle which is one third of a right angle, compute the value of $\frac{\sin\theta}{\theta}$. $\left[\text{Take } \frac{1}{\pi} = {\cdot}3183.\right]$

8. Compute by help of the tables the value of $\sqrt[3]{\frac{\cot 73^\circ\ 18'\ 14''}{8{\cdot}790726}}$ to five places of decimals.

9. Show why we may expect in a table of sines to find the "differences" greatest at the beginning and growing less as the table proceeds.

10. AB, AC are two straight lines including the angle 45°. B is a point whose distance from A is known to be 1000 yards. An observer moves from A along AC until at a point P in AC he finds the angle BPA to be 127° 19′. What is the distance of P from A?

11. When a triangle ABC is solved from the given parts AB=100 feet, BC=56 feet, the angle BAC=27° 18′ 54″, find the difference of the two values obtained for the angle B.

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12. Express the radius of the circle inscribed in a given triangle in terms of the sides of the triangle. If the sides of the triangle are 57, 76, and 95 feet, find the lengths of the two parts into which the longest side is divided by the point of contact of the inscribed circle.
13. The area of a regular polygon of 9 sides is 1125 square feet. Find the length of each side to the nearest inch.

MATHEMATICS.

Thursday, 7th July 1870. 10 A.M. to 1 P.M.

1. State Napier's rules for the solution of a right-angled spherical triangle, and prove them in the case where the complement of the hypothenuse is the middle part.

   The angles of a spherical triangle ABC where C is a right angle being $A=97°\ 2'\ 35''$, $B=57°\ 43'\ 12''$, find the side BC.
2. Find the equation to a straight line which passes through the point a, b, and touches the circle $x^2+y^2=c^2$.
3. Define a parabola, and thence find its polar equation when the focus is the pole, and the polar equation to a straight line touching it at a given point.
4. In an ellipse referred to its centre as origin, find the equation to the locus of the middle points of a series of parallel chords. What are conjugate diameters?
5. If S and H are foci of an hyperbola, and P any point of it, assuming the equation to the tangent prove that the tangent at P bisects the angle SPH.
6. Differentiate with respect to x the following expressions :—
   (1) $ax+\sqrt{a+x}$.
   (2) $x\cos x$.
   (3) $(x^2+a^2)ax$.
7. Define a maximum or minimum value of a function of one variable, and find the conditions to be satisfied when a given function has one of these values.

   Ex. Find the maximum and minimum values of $\frac{1}{\sin x}+\frac{1}{\cos x}$.
8. Find the equation to the tangent at any point of the curve $ay^2=x^3$. Is this curve convex or concave to the axis of x?
9. Find the radius of curvature of the curve $(a^2+x^2)y=a^2x$ at the point where $x=a$.
10. Integrate the following with respect to x :—
    (1) $\left(a\sqrt{x}+\frac{b}{\sqrt{x}}+\frac{c}{x}\right)dx$.
    (2) $\frac{xdx}{x^2-3x+2}$.
    (3) $\frac{1-3x}{\sqrt{1-x}}dx$.
    (4) $\sin^3x.dx$.
11. If S be the surface generated by a curve revolving about a line in its plane which is made the axis of x, find the expression for $\frac{dS}{dx}$, and apply it to find the surface generated by a parabola revolving about its axis, the surface being terminated by a plane through the focus perpendicular to the axis.

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MATHEMATICS.

Friday, 8th July 1870. 10 A.M. to 1 P.M.

1. Assuming the "parallelogram of forces," enunciate and prove the proposition known as the "polygon of forces."

   If a system of forces be represented in magnitude and line of action by the sides of a polygon taken in order, show that the sum of the moments of all the forces round any point within the polygon is invariable.

2. If two unequal but *not* parallel forces in one plane acting on the arms of a straight lever without weight, are in equilibrium about a fulcrum placed between them, show that the direction of the resultant of the two forces will pass through the fulcrum.

   A lever without weight is 10 inches long, at its opposite ends strings of 8 inches and 6 inches long are respectively attached, the other ends of the string are knotted together without being shortened and support a weight at the knot, find where a fulcrum must be placed in the lever so that it shall remain horizontal.

3. Find the ratio of (P) to (W) when in equilibrium in that system of three movable pullies, where each pully hangs by a separate string, the strings being parallel and the pullies and strings without weight.

   Show that the position of the centre of gravity of (P) and (W) is the same, in whatever position they hang.

4. State the elementary laws of statical friction, and explain what is meant by the limiting angle of resistance, when pressure is applied to a surface.

   A weight (W) is placed on an inclined plane which rises one foot vertical for nine feet horizontal, and the friction is one pound in 18 of perpendicular pressure, show that the pressure which, acting parallel to the plane will be just on the point of moving (W) up the plane, is *nearly* $\frac{W}{6}$.

5. Point out the distinction between the work applied to a machine and the useful work of the machine, and show how to express the modulus of a machine.

   The mean section of a stream turning a water-wheel is 4 feet by $2\frac{1}{2}$ feet, its mean velocity is 40 feet per minute, and it has a fall of 16 feet, find the modulus of the machine when it raises 45 cubic feet of water per minute to the height of 100 feet.

6. Give definitions of accelerating force and of moving force, explaining how each kind of force is measured dynamically. State and illustrate briefly the third law of motion.

   A weight of 100 pounds is moved along a horizontal plane by a constant pressure of 20 pounds acting parallel to the plane, find the space described by the weight in 20 seconds, (1) when the plane is smooth, (2) when rough, the coefficient of friction being $\frac{4}{25}$.

7. A body is projected with a given velocity and at a given angle with the horizon from a given point in an inclined plane, find (R) the range of the projectile *down* the inclined plane, and (T) the time of flight.

   If (R′) and (T′) be the range and time flight of the body projected *up* the plane with the same velocity and at the same angle, prove $R : R' :: T : T'$.

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8. When it is said that the length of the second's pendulum is invariable at the same place, of what form is the pendulum assumed to be. Show that the squares of the number of oscillations made by two pendulums in the same time and at the same place are as the lengths of the pendulums. A second's pendulum is lengthened by $\frac{1}{100}$ of an inch, find the number of seconds it will lose in a day, the length of the second's pendulum being 39·13 inches.
9. A plane rectangular area is immersed vertically in water, show how to determine the whole pressure of the water upon it. Do the pressures in this case admit of a single resultant?

   A cubical box with its sides vertical is half filled with water, a heavy ball of 144 cubic inches in volume is immersed in the water, find the increase of pressure in consequence on one of the vertical faces of the cube, the linear edges of the cube being each one foot.
10. Show how to compare the specific gravities of two liquids by weighing the same heavy body in both liquids.

    A body in vacuo weighs 100 ounces, in water it weighs 97 ounces, in mercury 59½ ounces, find the specific gravity of mercury.
11. Explain why the height of the barometer varies at different times at the same level, and at different levels at the same time.

    If the radii of the cistern and tube of a barometer be to each other as 3½ to 1, find the true variation in the barometric column corresponding to an apparent variation of three inches.

ENGLISH.

Monday, 11th July 1870. 2.30 P.M. to 5.30 P.M.

Only one of the two subjects for Composition is to be attempted.

Subject for Composition:—

Either,

1. The qualities which most conduce to success in life.

or

2. "One science only will one genius fit;
   So vast is art, so narrow human wit."

   Is this true, and why?
3. State, with examples, the various uses of the subjunctive and infinitive moods.
4. Explain, and illustrate by examples, the following assertions:—"A "verb which has several subjects of different numbers or persons "agrees with the nearest;" "The perfect tense is really a "present;" "The present indefinite can express habit and "future time."
5. Explain the grammatical terms, *Objective Case*, *Nominative*, *Possessive*, *Accusative*, and *Dative*. Are all these terms properly used in reference to English grammar?
6. Derive *Cordwain*, *Lazaretto*, *Charles's Wain*, *Beef-eater*, *Farthing*, and *Cousin*.
7. Explain any peculiarities of construction in the following expressions:—"He was offered the command;" "He keeps saying the

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"same thing;" "Full many a gem;" "'Tis distance lends enchantment to the view;" "Poor and content is rich enough;" "Pending the verdict, the judges went to dinner;" "We could not hear him for the cheers;" "There is no question but he will return."

8. Re-write the following sentences in a corrected form, but with as little change as possible:—"The habitual want of vigour and promptitude, which are everywhere observable, are to be perceived in the treatment of crime in Italy;" "He guarded with restless solicitude over his friend's possessions;" "Both started at the grandeur of the man they thought they knew, but in reality had never seen him;" "Every city, town, and village, as he passed through them, vied with each other in welcoming him;" "The registered paletot, varying from half a guinea to a guinea, places it within the reach of all;" "Often as we have differed, I could not fail always to entertain for the late earl sentiments of regard;" "These were not the golden youth whom he had been assured by his friend would greet him."

ENGLISH HISTORY.

Wednesday, 13th July 1870. 2.30 P.M. to 5.30 P.M.

1. Describe the powers and privileges of the House of Peers, and the way in which its members acquire the right to sit. Mention any events in English history which illustrate in a special way the prerogatives of that body.
2. Explain the words:—*Mortmain, frank-pledge, fief, wardship, investiture, præmunire.*
3. Give a narrative of the principal events of the reign of Edward III., *or* of James II.
4. Name any laws passed in the twelfth and thirteenth centuries which affected the relations of the State to the Church in England.
5. Which of our sovereigns were personally distinguished as soldiers, and in what way?
6. In what way were these persons severally distinguished:—Hereward, John of Gaunt, Raleigh, Monk, C. J. Fox, Burke, Nelson?
7. Give a detailed account of one of the under-mentioned battles:—Bosworth, Marston Moor, Sedgemoor, Waterloo, La Hogue.
8. Reproduce, in substance, Froude's estimate of Burleigh's character, or Macaulay's of the character of Halifax.
9. Mention four of our most important colonial possessions, and state the time and the circumstances in which they were acquired.
10. Explain the meaning of the allusions in these passages:—

(*a*) "He nothing common did or mean,
Upon that memorable scene;
But with his keener eye
The axe did try,
And bowed his comely head
Down as upon a bed."

(*b*) "And on the neck of Fortune proud
Hast reared God's trophies, and his work pursued;
While Darwen's stream with blood of Scotts imbrued
And Dunbar field resounds thy praises loud,
And Worcester's laureat wreath."

(*c*) " Your uncle York is joined with Bolingbroke,
And all your northern castles yielded up
And all your southern gentlemen in arms
Upon his faction."

(*d*) " I Pandulph of fair Milan, Cardinal,
And from Pope Innocent, the legate here,
Do in his name religiously demand
Why thou against the Church, our holy mother,
So wilfully dost spurn."

(*e*) " O Cromwell, Cromwell,
Had I but served my God with half the zeal
I served my king, he would not in mine age
Have left me naked to mine enemies."

GEOGRAPHY.

Tuesday, 12th July 1870. 2.30 A.M. to 5.30 P.M.

1. Draw a map of France. Mark the situations of the towns by asterisks (*), and the directions of the rivers and mountain ranges by lines. Insert the names in the proper places.
2. Draw a similar map of the African continent.
3. Draw a map of the West Indies.
4. Through what states, and past what important towns, do the Tagus, Elbe, Rio de la Plata, and Irawady flow?
5. Through what districts do the Pentland Hills, the Vosges, the Altai, the Andes, and the Harz mountain ranges extend?
6. Mention countries particularly rich, and others as remarkably deficient, in the means of water communication.
7. On what rivers are York, Waterford, Greenock, Munich, Bagdad, Nankin, Seringapatam, and Cincinnati situated?
8. Point out peculiarities in the position of Quito, Mexico, Madrid, St. Petersburg, Rome, and Amsterdam.
9. Describe the climate and the general physical characteristics of the Shetland Islands, British Columbia, Queensland, Nova Scotia, and the Crimea.
10. Where are the Zuyder Zee, the Deccan, Tierra del Fuego, the Red River Settlement, Hawaii, and Exmoor?

LATIN.

Monday, 11th July 1870. 10 A.M. to 1 P.M.

Passages for translation:—

C. Cæsari ex Hispania redeunti obviam longissime processisti. Celeriter isti, redisti, ut cognosceret te, si minus fortem, attamen strenuum. Factus es ei rursus, nescio quomodo, familiaris. Habebat hoc omnino Cæsar: quem plane perditum ære alieno egentemque, si eumdem nequam hominem audacemque cognorat, hunc in familiaritatem libentissime recipiebat. His igitur rebus præclare commendatus, jussus es renuntiari consul, et quidem cum ipso. Nihil queror de Dolabella, qui tum est impulsus, inductus, elusus. Qua in re quanta fuerit utriusque vestrum perfidia in Dolabellam, quis ignorat? Ille induxit, ut peteret: ille pro-

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missum et receptum intervertit ad seque transtulit : tu ejus perfidiæ voluntatem tuam adscripsisti. Veniunt kalendæ Januariæ : cogimur in senatum : invectus est copiosius multo in istum et paratius Dolabella, quam nunc ego. Hic autem iratus quæ dixit, dii boni ? Primum quum Cæsar ostendisset, se, priusquam proficisceretur, Dolabellam consulem esse jussurum : quem negant regem, qui et faceret semper ejusmodi aliquid et diceret ; sed quum Cæsar ita dixisset, tum hic bonus augur eo se sacerdotio præditum esse dixit, ut comitia auspiciis vel impedire, vel vitiare posset, idque se facturum esse asseveravit.

CICERO.

Dum hæc per provincias a Vespasiano ducibusque partium geruntur, Vitellius contemptior in dies segniorque, ad omnes municipiorum villarumque amœnitates resistens, gravi urbem agmine petebat. Sexaginta millia armatorum sequebantur, licentia corrupta : calonum numerus amplior : procacissimis etiam inter servos lixarum ingeniis : tot legatorum amicorumque comitatus, inhabilis ad parendum, etiamsi summa modestia regeretur. Onerabant multitudinem obvii ex urbe senatores equitesque : quidam metu, multi per adulationem, ceteri ac paullatim omnes, ne, aliis proficiscentibus, ipsi remanerent. Adgregabantur e plebe, flagitiosa per obsequia Vitellio cogniti, scurræ, histriones, aurigæ, quibus ille amicitiarum dehonestamentis mire gaudebat. Nec coloniæ modo aut municipia congestu copiarum, sed ipsi cultores arvaque maturis jam frugibus, ut hostile solum, vastabantur. Multæ et atroces inter se militum cædes, post seditionem Ticini cœptam manente legionum auxiliorumque discordia ; ubi adversus paganos certandum foret, consensu. Sed plurima strages ad septimum ab urbe lapidem. Singulis ibi militibus Vitellius paratos cibos, ut gladiatoriam saginam, dividebat.

TACITUS.

Grammatical Questions.

1. Decline, through both numbers, *deus*, *dea*, *bos*, and *vis*.
2. Give the present participles of *eo*, *molo*, *immolo ;* and the past participles of *adjuvo*, *aggero*, *affero*, *cædo*, *cano*, *cingo*, *lino*, *sero*, and *uro*.
3. Give examples of nouns (1) which have no singular ; (2) which have no plural ; (3) which have different meanings in the singular and in the plural.
4. Express in Latin (1) "Twenty years ago ;" (2) "Forty years old ;" (3) "Nineteen feet high ;" (4) "In the year of Rome 302."
5. Parse each word in the following sentence :—"Si edoceri se sissent "quæ fraus occulta in lege ferretur, memorem se majorum "suorum, concilium plebis non impediturum."
6. What Latin verbs have irregular infinitives ? Give the infinitives ; and account, if you can, for what is irregular in them.
7. What case would you employ after each of the following verbs ? *Adeo*, *invideo*, *lædo*, *noceo*, *odi*, *potior*, *promo*, *prosum*, *satago*, and *suadeo*.
8. Distinguish between (1) "Dedit adolescentibus tria sestertia," and "Dedit adolescentibus trina sestertia ;" (2) "Vereor ut veniat ;" and "Vereor ne veniat ;" (3) "Senatum consuluit," and "Sena-"tui consuluit ;" (4) "Gratias agere," and "Gratias habere ;" (5) "Urbem oppugnavit" and "Urbem expugnavit."
9. Give the meanings and derivations of the following words : *Ædipol*, *mehercule*, *pontifex*, *provincia*, *tripudium*, *secundus*, *nudiustertius*, *sestertius*, *solitaurilia*, *comperendinatio*.

10. Express in idiomatic Latin :—

a. How do you do? Pretty well, as times go.

b. Pray take some pears. No, thank you.

c. He's a dangerous man. Beware of him. He spares neither friend nor foe.

d. Go and be hanged. You torture me with your chattering.

Translate into Latin Prose :—

When the Gauls entered Etruria, the Etruscans were engaged in the secret preparation of a mighty armament against Rome. Alarmed and disconcerted at the arrival of the strangers, demanding lands as the price of peace, they sought to enlist them on their own side by the amplest promises of Roman plunder. Meanwhile they offered an immediate donative in money. The price was stipulated and paid down, when the Gauls treacherously refused to move without the more substantial present of a fixed territorial settlement. "Give us lands," they exclaimed, "and "we will be your allies now and hereafter; otherwise we will retrace "our steps with the treasures we have already extorted." Deceived and baffled, the Etruscans deliberated, and determined with becoming spirit to have no further dealings with such perfidious and dangerous allies. The Gauls kept their word and recrossed the Apennines.

LATIN.

Tuesday, 12th July 1870. 10 A.M. to 1 P.M.

Passages for Translation :—

Principio sociis edicit, signa sequantur,
Atque animos aptent armis, pugnæque parent se.
Jamque in conspectu Teucros habet et sua castra,
Stans celsa in puppi: clipeum quum deinde sinistra
Extulit ardentem. Clamorem ad sidera tollunt
Dardanidæ e muris; spes addita suscitat iras;
Tela manu jaciunt. Quales sub nubibus atris
Strymoniæ dant signa grues, atque æthera tranant
Cum sonitu, fugiuntque Notos clamore secundo.
At Rutulo regi ducibusque ea mira videri
Ausoniis; donec versas ad litora puppes
Respiciunt, totumque allabi classibus æquor.
Ardet apex capiti, cristisque a vertice flamma
Funditur, et vastos umbo vomit aureus ignes:
Non secus ac liquida si quando nocte cometæ
Sanguinei lugubre rubent, aut Sirius ardor:
Ille sitim morbosque ferens mortalibus ægris
Nascitur, et lævo contristat lumine cœlum.
Haud tamen audaci Turno fiducia cessit
Litora præcipere, et venientes pellere terra.
"Quod votis optastis adest, perfringere dextra.
In manibus Mars ipse, viri. Nunc conjugis esto
Quisque suæ tectique memor; nunc magna referto
Facta, patrum laudes. Ultro occurramus ad undam,
Dum trepidi, egressique labant vestigia prima.
Audentes fortuna juvat."

VIRGIL.

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"O cives, cives, quærenda pecunia primum est:
Virtus post nummos." Hæc Janus summus ab imo
Prodocet, hæc recinunt juvenes dictata senesque
Lævo suspensi loculos tabulamque lacerto.
Est animus tibi, sunt mores et lingua fidesque,
Sed quadringentis sex septem millia desunt:
Plebs eris. At pueri ludentes, "Rex eris," aiunt,
"Si recte facies." Hic murus aëneus esto:
Nil conscire sibi, nulla pallescere culpa.
Roscia, dic sodes, melior lex, an puerorum est
Nenia, quæ regnum recte facientibus offert,
Et maribus Curiis et decantata Camillis?
Isne tibi melius suadet, qui rem facias, rem,
Si possis, recte, si non, quocunque modo rem,
Ut propius spectes lacrimosa poëmata Pupî,
An qui Fortunæ te responsare superbæ
Liberum et erectum præsens hortatur et aptat?
Quod si me populus Romanus forte roget, cur
Non, ut porticibus, sic judiciis fruar isdem,
Nec sequar aut fugiam, quæ diligit ipse vel odit,
Olim quod vulpes ægroto cauta leoni
Respondit, referam: "Quia me vestigia terrent,
Omnia te adversum spectantia, nulla retrorsum."
Bellua multorum es capitum. Nam quid sequar aut quem?
Pars hominum gestit conducere publica, sunt qui
Crustis et pomis viduas venentur avaras,
Excipiantque senes, quos in vivaria mittant;
Multis occulto crescit res fœnore.

HORACE.

Grammatical Questions.

1. Give the perfect tense of tollo, ardeo, vomo, pello, increpo, recino.

2. Ea mira *videri*. What do you call this infinitive? In what style of composition, and by what authors is it commonly used?

3. *Suspensi loculos*, &c. Explain this construction, and quote any other instances of it.

4. *Plebs eris.* What is there remarkable in this expression?

5. Explain the line—"Ut propius ———— Pupî."

6. Give the strict meaning of *responsare* in the passage from Horace. Quote any other passage where it is used in the same sense, and show how it comes to have that meaning.

7. Distinguish vās, văs: licet, licetur; nītĕre, nĭtēre; condītus, condĭtus; ōs, ŏs.

8. Give the derivations of—illico, ilicet, nequam, denique, sestertius, sodes.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

Translate into Latin Elegiacs:—

Like as the waves make towards the pebbled shore,
So do our minutes hasten to their end.
Each changing place with that which goes before
In sequent toil all forwards do contend,
And Time that gave doth now his gifts confound;
Time doth transfix the flourish set on youth
And delves the parallels in beauty's brow;
Feeds on the vanities of nature's truth,
And nothing stands but for his scythe to mow;
And yet to times in hope, my verse shall stand,
Praising thy worth, despite his cruel hand.

GREEK.

Wednesday, 13th July 1870. 10 A.M. to 1 P.M.

Passages for Translation.

Οἱ δὲ Πελασγοὶ οὗτοι Λῆμνον τότε νεμόμενοι καὶ βουλόμενοι τοὺς Ἀθηναίους τιμωρήσασθαι, εὖ τε ἐξεπιστάμενοι τὰς Ἀθηναίων ὁρτὰς, πεντηκοντέρους στησάμενοι ἐλόχησαν Ἀρτέμιδι ἐν Βραυρῶνι ἀγούσας ὁρτὴν τὰς τῶν Ἀθηναίων γυναῖκας, ἐνθεῦτεν δὲ ἁρπάσαντες τουτέων πολλὰς οἴχοντο ἀποπλέοντες, καί σφεας ἐς Λῆμνον ἀγαγόντες παλλακὰς εἶχον. ὡς δὲ τέκνων αὗται αἱ γυναῖκες ὑπεπλήσθησαν, γλῶσσάν τε τὴν Ἀττικὴν καὶ τρόπους τῶν Ἀθηναίων ἐδίδασκον τοὺς παῖδας. οἱ δὲ οὔτε συμμίσγεσθαι τοῖσι ἐκ τῶν Πελασγίδων γυναικῶν παισὶ ἤθελον, εἴ τε τύπτοιτό τις αὐτῶν ὑπ' ἐκείνων τινὸς, ἐβοήθεόν τε πάντες καὶ ἐτιμώρεον ἀλλήλοισι· καὶ δὴ καὶ ἄρχειν τε τῶν παίδων οἱ παῖδες ἐδικαίευν, καὶ πολλὸν ἐπεκράτεον. μαθόντες δὲ ταῦτα οἱ Πελασγοὶ ἑωυτοῖσι λόγους ἐδίδοσαν· καὶ σφίσι βουλευομένοισι δεινόν τι ἐσέδυνε, εἰ δὴ διαγινώσκοιεν σφίσι τε βοηθέειν οἱ παῖδες πρὸς τῶν κουριδιέων γυναικῶν τοὺς παῖδας καὶ τούτων αὐτίκα ἄρχειν πειρῶτο, τί δὴ ἀνδρωθέντες δῆθεν ποιήσουσι. ἐνθαῦτα ἔδοξέ σφι κτείνειν τοὺς παῖδας τοὺς ἐκ τῶν Ἀττικέων γυναικῶν. ποιεῦσι δὴ ταῦτα, προσαπολλύουσι δέ σφεων καὶ τὰς μητέρας. Ἀπὸ τούτου δὲ τοῦ ἔργου καὶ τοῦ προτέρου τούτων, τὸ ἐργάσαντο αἱ γυναῖκες, τοὺς ἅμα Θόαντι ἄνδρας σφετέρους ἀποκτείνασαι, νενόμισται ἀνὰ τὴν Ἑλλάδα τὰ σχέτλια ἔργα πάντα Λήμνια καλέεσθαι.

HERODOTUS.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

Πρὸς ταῦτα ἀναστὰς Ξενοφῶν ὑπὲρ τῶν στρατιωτῶν εἶπεν, Ἡμεῖς δέ, ὦ ἄνδρες Σινωπεῖς, ἥκομεν ἀγαπῶντες ὅτι τὰ σώματα διεσωσάμεθα καὶ τὰ ὅπλα· οὐ γὰρ ἦν δυνατὸν ἅμα τε χρήματα ἄγειν καὶ φέρειν καὶ τοῖς πολεμίοις μάχεσθαι. καὶ νῦν ἐπεὶ εἰς τὰς Ἑλληνίδας πόλεις ἤλθομεν, ἐν Τραπεζοῦντι μέν, παρεῖχον γὰρ ἡμῖν ἀγοράν, ὠνούμενοι εἴχομεν τὰ ἐπιτήδεια, καὶ ἀνθ' ὧν ἐτίμησαν ἡμᾶς καὶ ξένια ἔδωκαν τῇ στρατιᾷ, ἀντετιμῶμεν αὐτούς, καὶ εἴ τις αὐτοῖς φίλος ἦν τῶν βαρβάρων, τούτων ἀπειχόμεθα· τοὺς δὲ πολεμίους αὐτῶν ἐφ' οἷς αὐτοὶ ἡγοῦντο κακῶς ἐποιοῦμεν ὅσον ἐδυνάμεθα. ἐρωτᾶτε δὲ αὐτοὺς ὁποίων τινῶν ἡμῶν ἔτυχον· πάρεισι γὰρ ἐνθάδε οὓς ἡμῖν ἡγεμόνας διὰ φιλίαν ἡ πόλις συνέπεμψεν. ὅποι δ' ἂν ἐλθόντες ἀγορὰν μὴ ἔχωμεν, ἄν τε εἰς βάρβαρον γῆν ἄν τε εἰς Ἑλληνίδα, οὐχ ὕβρει ἀλλὰ ἀνάγκῃ λαμβάνομεν τὰ ἐπιτήδεια. καὶ Καρδούχους καὶ Χαλδαίους καίπερ βασιλέως οὐχ ὑπηκόους ὄντας ὅμως καὶ μάλα φοβεροὺς ὄντας πολεμίους ἐκτησάμεθα διὰ τὸ ἀνάγκην εἶναι λαμβάνειν τὰ ἐπιτήδεια, ἐπεὶ ἀγορὰν οὐ παρεῖχον. Μάκρωνας δὲ καίπερ βαρβάρους ὄντας, ἐπεὶ ἀγορὰν οἵαν ἐδύναντο παρεῖχον, φίλους τε ἐνομίζομεν εἶναι καὶ βίᾳ οὐδὲν ἐλαμβάνομεν τῶν ἐκείνων. Κοτυωρίτας δέ, οὓς ὑμετέρους φατὲ εἶναι, εἴ τι αὐτῶν εἰλήφαμεν, αὐτοὶ αἴτιοί εἰσιν· οὐ γὰρ ὡς φίλοι προσεφέροντο ἡμῖν, ἀλλὰ κλείσαντες τὰς πύλας οὔτε εἴσω ἐδέχοντο οὔτε ἔξω ἀγορὰν ἔπεμπον.

XENOPHON.

Grammatical Questions.

1. Parse the words οἴχοντο, ἐδίδοσαν, πειρῶτο, ἔδωκαν, παρεῖχον, ἐδικαίευν.
2. Gives the comparatives and superlatives of γέρων, νέος, ἐγγὺς, ασμενος.
3. Give the first aorists and perfects of γαμέω, γηράσκω, διδράσκω, δοκέω, ἐσθίω, ἀπεχθάνομαι, μάχομαι.
4. Ἀγαπῶντες: ἄγειν καὶ φέρειν. What is the exact meaning of these expressions?
5. Translate into Latin: ὁποίων τινῶν ἡμῶν ἔτυχον.
6. Point out any verbs in the above passages which illustrate the peculiar force of the middle voice.
7. Εἴ τις αὐτοῖς φίλος ἦν. Under what conditions would this be ἐάν τις αὐτοῖς φίλος ᾖ.
8. Notice the principal Ionic forms in either of the above passages.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

Translate into Greek Prose:—

It is evident that hosts of slaves just made free must become dangerous to their masters. Nor was their treatment such as to make them friends. They were turned out upon the hills to feed cattle and provide themselves with the necessaries of life. A body of these wretched men asked their master for clothing. "What," he asked, "are there no travellers with clothes on?" So the slaves became banditti, and to travel through Apulia without an armed retinue was a perilous adventure. From assailing travellers, they began to plunder small country houses, and all but the rich were obliged to desert the country, and flock into the towns.

GREEK.

Thursday, 14th July 1870. 10 A.M. to 1 P.M.

Passages for Translation:—

Ἦν δέ τις ἐν Τρώεσσι Δάρης, ἀφνειός, ἀμύμων,
Ἱρεὺς Ἡφαίστοιο· δύω δέ οἱ υἱέες ἦστην,
Φηγεὺς Ἰδαῖός τε, μάχης εὖ εἰδότε πάσης.
Τώ οἱ, ἀποκρινθέντε, ἐναντίω ὁρμηθήτην·
Τὼ μὲν ἀφ' ἵπποιϊν, ὁ δ' ἀπὸ χθονὸς ὦρνυτο πεζός.
Οἱ δ' ὅτε δὴ σχεδὸν ἦσαν ἐπ' ἀλλήλοισιν ἰόντες,
Φηγεύς ῥα πρότερος προΐει δολιχόσκιον ἔγχος·
Τυδείδεω δ' ὑπὲρ ὦμον ἀριστερὸν ἤλυθ' ἀκωκὴ
Ἔγχεος, οὐδ' ἔβαλ' αὐτόν· ὁ δ' ὕστερος ὦρνυτο χαλκῷ
Τυδείδης· τοῦ δ' οὐχ ἅλιον βέλος ἔκφυγε χειρός,
Ἀλλ' ἔβαλε στῆθος μεταμάζιον, ὦσε δ' ἀφ' ἵππων.
Ἰδαῖος δ' ἀπόρουσε, λιπὼν περικαλλέα δίφρον,
Οὐδ' ἔτλη περιβῆναι ἀδελφειοῦ κταμένοιο·
Οὐδὲ γὰρ οὐδέ κεν αὐτὸς ὑπέκφυγε Κῆρα μέλαιναν,
Ἀλλ' Ἥφαιστος ἔρυτο, σάωσε δὲ νυκτὶ καλύψας,
Ὡς δή οἱ μὴ πάγχυ γέρων ἀκαχήμενος εἴη.
Ἵππους δ' ἐξελάσας μεγαθύμου Τυδέος υἱός,
Δῶκεν ἑταίροισιν κατάγειν κοίλας ἐπὶ νῆας.
Τρῶες δὲ μεγάθυμοι ἐπεὶ ἴδον υἷε Δάρητος,
Τὸν μὲν ἀλευάμενον, τὸν δὲ κτάμενον παρ' ὄχεσφιν,
Πᾶσιν ὀρίνθη θυμός· ἀτὰρ γλαυκῶπις Ἀθήνη
Χειρὸς ἑλοῦσ', ἐπέεσσι προσηύδα θοῦρον Ἄρηα.

HOMER.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

ΧΟΡΟΣ.

Ὦ καλλιπυργον σοφίαν
Κλεινοτάτην τ' ἐπασκῶν,
Ὡς ἡδύ σου τοῖσι λόγοις
Σῶφρον ἔπεστιν ἄνθος.
Εὐδαίμονες ἆρ' ἦσαν οἱ
Τότε ζῶντες, ἡνίκ' ἦς,
Τῶν πρoτέρων. πρὸς οὖν τάδ', ὦ
Κομψοπρεπῆ μοῦσαν ἔχων,
Δεῖ σε λέγειν τι καινόν, ὡς
Εὐδοκίμηκεν ἀνήρ.
Δεινῶν δέ σοι βουλευμάτων ἔοικε δεῖν πρὸς αὐτόν,
Εἴπερ τὸν ἄνδρ' ὑπερβαλεῖ, καὶ μὴ γέλωτ' ὀφλήσεις.

ΑΔΙΚΟΣ

Καὶ μὴν πάλαι γ' ἐπνιγόμην τὰ σπλάγχνα, κἀπεθύμουν
Ἅπαντα ταῦτ' ἐναντίαις γνώμαισι συνταράξαι.
Ἐγὼ γὰρ ἥττων μὲν λόγος δι' αὐτὸ τοῦτ' ἐκλήθην
Ἐν τοῖσι φροντισταῖσιν, ὅτι πρώτιστος ἐπενόησα
Καὶ τοῖς νόμοις καὶ ταῖς δίκαις τἀναντί' ἀντιλέξαι.
Καὶ τοῦτο πλεῖν ἢ μυρίων ἔστ' ἄξιον στατήρων,
Αἱρούμενον τοὺς ἥττονας λόγους, ἔπειτα νικᾶν.
Σκέψαι δὲ τὴν παίδευσιν, ᾗ πέποιθεν, ὡς ἐλέγξω·
Ὅστις σε θερμῷ φησι λοῦσθαι πρῶτον οὐκ ἐάσειν.
Καίτοι τίνα γνώμην ἔχων, ψέγεις τὰ θερμὰ λουτρά;

ΔΙΚΑΙΟΣ.

Ὅτιὴ κάκιστόν ἐστι, καὶ δειλὸν ποιεῖ τὸν ἄνδρα.

ΑΔΙΚΟΣ.

Ἐπίσχες· εὐθὺς γάρ σε μέσον ἔχω λαβὼν ἄφυκτον.
Καὶ μοι φράσον, τῶν τοῦ Διὸς παίδων τίν' ἄνδρ' ἄριστον
Ψυχὴν νομίζεις, εἰπέ, καὶ πλείστους πόνους πονῆσαι;

ΔΙΚΑΙΟΣ.

Ἐγὼ μὲν οὐδέν' Ἡρακλέους βελτίον' ἄνδρα κρίνω.

ΛΑΪΚΟΣ.

Ποῦ ψυχρὰ δῆτα πώποτ' εἶδες Ἡράκλεια λουτρά;
Καίτοι τίς ἀνδρειότερος ἦν;

ΔΙΚΑΙΟΣ.

Ταῦτ' ἐστὶ ταῦτ' ἐκεῖνα,
Ἃ τῶν νεανίσκων ἀεὶ δι' ἡμέρας λαλούντων
Πλῆρες τὸ βαλανεῖον ποιεῖ, κενὰς δὲ τὰς παλαίστρας.

ARISTOPHANES.

Royal Military Academy, Woolwich, July 1870.

Grammatical Questions.

1. Parse the following words in the passage from Homer, noticing any irregularity in their formation: ἤστην, ἀποκρινθέντε, κταμένοιο, σάωσε, ἀκαχημένος, ἀλευάμενον, ὄχεσφιν, and ὀρίνθη.
2. What is the metre of the latter part of the passage from Aristophanes? What are its laws? Notice any infractions of them in the passage before you.
3. Distinguish between τις and τίς—παρά and πάρα—κῆρος and κηρός—ὡς and ὥς—φυλάξαι and φύλαξαι.
4. Give the derivations of σώφρων, κομψοπρεπής, στατήρ, ἄφυκτος, ἀδελφός, θυγάτηρ, ἐκκοπατίας, σαμφόρας.
5. What is the force of the following terminations in Greek?—-κός, -σκος, -ώδης, -άριον, -εῖον, -άς, -θεν, -θι, -τήριον, and -τέος. Illustrate each by two or three examples.
6. When would you use in Greek each of the following negatives?—οὐ, μή, οὐ μή, μὴ οὐ. Give one example of each.
7. What are the most common constructions with πρίν, ἕως, ὥστε, and ἵνα? When are ἵνα, ὡς, ὅφρα, κ.τ.λ. followed by the indicative?
8. What is the origin of inflections? Account, if you can, for those by which the Greek verb is conjugated.

Translate into Greek Iambics:—

Sir, I desire you do me right and justice;
And to bestow your pity on me: for
I am a most poor woman, and a stranger,
Born out of your dominions; having here
No judge indifferent, nor no more assurance
Of equal friendship and proceeding. Alas, sir,
In what have I offended you? What cause
Hath my behaviour given to your displeasure,
That thus you should proceed to put me off,
And take your good grace from me?

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

FRENCH.

Wednesday, 6th July 1870. 2.30 P.M. to 5.30 P.M.

Translate into English :—

J'allai faire la guerre à Mithridate, me dit Sylla, et je crus détruire Marius à force de vaincre l'ennemi de Marius. Pendant que je laissais ce Romain jouir de son pouvoir sur la populace, je multipliais sa mortification, et je le forçais tous les jours d'aller au Capitole rendre grâces aux dieux des succès dont je le désespérais. Je lui faisais une guerre de réputation, plus cruelle cent fois que celle que mes légions faisaient au roi barbare ; il ne sortait pas un seul mot de ma bouche qui ne marquât mon audace ; et mes moindres actions, toujours superbes, étaient pour Marius de funestes présages. Enfin Mithridate demanda la paix ; les conditions étaient raisonnables ; et si Rome eût été tranquille, ou si ma fortune n'avait pas été chancelante, je les aurais acceptées. Mais le mauvais état de mes affaires m'obligea de les rendre plus dures ; j'exigeais qu'il détruisit sa flotte, et qu'il rendit aux rois ses voisins les états dont il les avait dépouillés. "Je te laisse," lui dis-je, " le royaume de tes pères, à toi qui devrais me remercier de ce que je " te laisse la main avec laquelle tu as signé l'ordre de faire mourir en " un jour cent mille Romains." Mithridate resta immobile, et Marius au milieu de Rome en trembla.

MONTESQUIEU.

II.

Questions Grammaticales.

1°. Règle.—Dans le superlatif relatif, l'article prend les inflexions du substantif exprimé ou sous-entendu auquel il correspond. Dans le superlatif absolu l'article qui précède les mots *plus*, *moins*, étant pris adverbialement n'est susceptible d'aucune distinction de genre ni de nombre.—Donnez des exemples.

2°. Donnez des exemples de *tout* substantif, *tout* adjectif, et *tout* adverbe.

Dans quel cas *tout* adverbe cesse-t-il d'être invariable ?

3°. Montrez comment le pronom relatif *en*, fait tantôt les fonctions de régime direct, tantôt celles de régime indirect.

4°. Donnez les genres des substantifs suivants : *Destinée, apogée, aphélie, rêverie, incendie, voltige, prestige, précipice, solstice, emploi, paroi, auditoire, écritoire.*

5°. Donnez la première personne des temps primitif des verbes suivants : *Peindre, paraître, concevoir, plaire, vivre, vaincre.*

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

III.

Essai.

Traitez l'un ou l'autre des deux sujets suivants :—

A. De l'influence des armées permanentes sur la condition des sociétés modernes.

B. Dites ce que vous savez sur l'un de ces hommes qui ont le plus contribué à l'établissement de la domination anglaise dans les Indes : —Lord Clive, Warren Hastings, &c.

FRENCH.

Friday, 8th July 1870. 2.30 P.M. to 4 P.M.

Translate into French :—

When the Duke of Richmond had spoken, Chatham rose. For some time his voice was inaudible. At length, his tones became distinct and his action animated. Here and there his hearers caught a thought or an expression which reminded them of William Pitt. But it was clear that he was not himself. He lost the thread of his discourse, hesitated, repeated the same words several times, and was so confused that, in speaking of the Act of Settlement, he could not recall the name of the Electress Sophia. The House listened in solemn silence, and with the aspect of profound respect and compassion. The stillness was so deep that the dropping of a handkerchief would have been heard. The Duke of Richmond replied with great tenderness and courtesy; but while he spoke, the old man was observed to be restless and irritable. The Duke sat down. Chatham stood up again, pressed his hand on his breast, and sank down in an apoplectic fit.

MACAULAY.

DICTATION.

Charles XII., Roi de Suède, éprouva ce que la prospérité a de plus grand, et ce que l'adversité a de plus cruel, sans avoir été amolli par l'une ni ebranlé un moment par l'autre. Presque toutes ses actions, jusqu'à celles de sa vie privée et unique, ont été bien au dela du vraisemblable. C'est peut-être le seul de tous les hommes, et jusqu'ici le seul de tous les rois, qui ait vécu sans faiblesse; il a porté toutes les vertus d'héros à un exces où elles sont aussi dangereuses que les vices opposés. Sa fermeté devenue opiniâtre fit ses malheurs dans l'Ukraine et le retint cinq ans en Turquie. Sa libéralité dégénérant en profusion a ruiné la Suède. Son courage poussé jusqu'à la témerité a causé sa mort. Sa justice a été quelquefois jusqu'à la cruauté, et dans les dernières années le maintien de son autorité approchait de la tyrannie. Ses grandes qualités, dont une seule eût pu immortaliser un autre prince, ont fait le malheur de sa vie.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

GERMAN.

Thursday, 7th July 1870. 2.30 P.M. to 5.30 P.M.

Translate into English:—

Herr Coffin, der so eben ein Buch über seine Reise um die Welt herausgegeben hat, erklärt uns besser als die meisten Schriftsteller warum die Mandarinen, so rasch sie auch sonst vorwärts gehen, sich immer noch in drei Punkten unsern Vertretern standhaft widersetzen. Nichts wird sie bewegen die Bearbeitung der Steinkohlengruben oder den Bau von Eisenbahnen im Innern zu erlauben, und nichts sie dahin bringen in diesem Augenblicke die Verwendung von Dampfschiffen auf den Binnenwässern zu gestatten. Der Grund für diesen letztern Entschluß ist leicht begreiflich: er besteht einzig und allein in der Furcht vor einer Revolution, die ausbrechen könnte, wenn in einem Augenblicke mehrere hunderttausend Familien, die in Betreff ihres Lebensunterhaltes ganz von der Flußschifffahrt abhängen, arbeitslos würden. Der Einwand gegen die Herstellung von Eisenbahnen und die Öffnung der Kohlengruben ist anderer Art: er beruht auf der außerordentlich großen Verehrung der Chinesen für ihre Vorväter. Das Reich ist so alt, daß das ganze Land ein weites Todtenfeld bildet. Eisenbahnen sind hartherzig: sie durchschneiden die Städte der Lebenden und der Todten in gleicher Weise. Eine Eisenbahn, die sich in China zehn Meilen erstreckte, würde das Geisterreich stören. Unglückliche Spatenstiche könnten in irgend einem Begräbnißplatze die Schädel der Vorfahren vom Rückenwirbel trennen, und dann würden kopflose Geister im Lande der Dunkelheit umherwandern, und Krankheit, Pestilenz, Unglück aller Art, und unsägliche Gräuel kämen dann über China. Der Einwand gegen die Öffnung der Steinkohlengruben ist ein ähnlicher. Eine der besten Kohlen im Reiche liegt in den Bergen hart bei Peking, auf denen sich die Gräber ihrer Kaiser aus den ältesten Dynastien befinden.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

Translate into German:

Dear Lewes,—I wish I had more to tell you regarding Weimar and Goethe. Five and twenty years ago at least, a score of young English lads used to live at Weimar for study, or sport, or society, all of which were to be had in the friendly little Saxon capital. The grand duke and duchess received us with the kindliest hospitality. The court was splendid, but yet most pleasant and homely. We were invited in our turns to dinners, balls, and assemblies there. Such young men as had a right appeared in uniforms, diplomatic and military. I, for my part, had the good luck to buy Schiller's sword, which formed a part of my court costume, and still hangs in my study, and puts me in mind of days of youth the most kindly and delightful. We knew the whole society of the little city, and but that the young ladies, one and all, spoke admirable English, we surely might have learned the very best German. The society met constantly. The ladies of the court had their evenings. The theatre was open twice or thrice in the week, where assembled a large family party. Goethe had retired from the direction, but the great traditions remained still.

Grammatical Questions.

1. Give the meaning and the nominative plural of der See, das Herz, die Braut, der Geiſt, der Arm, der Ofen.
2. Give six nouns which never occur in the plural, and six which never occur in the singular.
3. Give six verbs which are reflective in German, but not in English, such as Ich freue mich—I am pleased.
4. Give six verbs which have i in the infinitive, a in the imperfect, and u in the past participle.
5. Give six verbs which have e in the infinitive, a in the imperfect, and e in the past participle.
6. Decline Kein froher Tag.
7. Give the German for—*at least, at random, at once, on foot, on horseback, upside down, to learn by heart.*

Dictation:—

Es hatte aber zwölf Uhr geſchlagen, als die Kanonen der Invaliden abgefeuert würden. Man konnte das Getöſe über ganz Paris hören, und bald verſammelten ſich gröſſere und kleinere Gruppen welche den Grund dieſes ungewöhnlichen Ereignißes zu erfahren ſuchten. Endlich hieß es, daß die Nachricht von einer entſcheidenden Schlacht eingetroffen ſei, und die Maſſen zogen ſich mehr and mehr nach dem Tuilerien Garten, wo man Genaueres zu hören hoffte. Vor dem Palaſt war die Garde aufgeſtellt, und bald erſchien auch der Kaiſer mit der Kaiſerin und dem jungen Prinzen auf dem Balkon. Die Aufregung des Volkes war groß, denn obgleich der Prinz nie populär geweſen war, ſo ſchmeichelte doch die Idee eines uner-

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warteten Sieges der Eitelkeit des Französischen Volkes. Während die Musik einen Siegesmarsch spielte, erscholl von allen Seiten der Ausruf, Es lebe der Kaiser!

GERMAN.

Friday, 8th July 1870. 4 P.M. to 5.30 P.M.

Essay.

Write a dialogue in German on the advantages and disadvantages of novel reading.

Give the principal rules on the arrangement of words in German, and write a number of sentences in German and English to illustrate each rule, and to show the material differences in the succession of words in a German and in an English sentence.

HINDÛSTÂNÎ.

Monday, 4th July 1870. 2.30 P.M. to 5.30. P.M.

I.

1. Decline the words *larkâ*, *larkî*, and *kitâb*.
2. Show how the comparison of adjectives is expressed.
3. Give the nominative, dative, and agent cases of the pronouns *maiṅ*, *wuh*, and *kauṅ*.
4. Explain and give examples of the use of the word *apnâ*.
5. Give the third person singular of every tense of the verb *chalnâ*.
6. Write out the past tense of the verbs *honâ* and *karnâ*.
7. Explain fully and give examples of the use of *ne* in construction with verbs.
8. Show how the words *b'ad*, *pichhe*, *ṭaraf*, *sabab*, *wâsṭe*, *ṭaraḥ* and *hâth* are used.
9. Write the cardinal numbers from 50 to 60 both in words and figures.
10. Explain the nature and use of the Persian *izâfat*.

II.

Translate :—

a. ايک شخص بهوکها قاضي کي يهان گيا کهني لگا مَين بهوکها هُون کچهه مُجهي دو تو مَين کهاؤن قاضي ني کها کِه يهه قاضي کا گهر هَي قسّم کها اَور چلا جا ۞

b. آخر اِن کي بي مُروّتي ديکھ کر ايک حَويلي خريد کي – وهان جا رها – يہہ کُتّا بھي ميري ساتھ چلا آيا * واسطي ضُروريات کي اسباب خانہ داري کا جمع کيا – اَور دو غُلام خِدمت کي خاطِر مول ليئي – اَور باقي پُونجي سي ايک دُوکان بزّازي کي کرکي خُدا کي تَوکّل پر بيٹھا – اپني قِسمت پر راضي تھا * اگرچہ بھائيون ني بد خُلقي کي – پر خُدا جو مِہربان هُوا – تين برس کي عرصي مين اَيسي دُوکان جمي کہ مَين صاحِبِ اِعتبار هُوا ۞

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c. بندہ نَواز سلامت –

حقير تُراب بيگ کورنشين بجا لاکر گُذارش کرتا هَي کہ اِن دِنون اِس شہر مين ايک بڑا سا باغ جِس مين طرح طرح کي پھول اَور بھانت بھانت کي ميوي پھولتي اَور پھلتي هَين بکاؤ هَي اگر آپ کو خريدنا اُسکا منظور هو تو لِکھ بھيجئي کہ فِدوي اِسکي مالک سي قيمت اُسکي فيصل کرکي حضور عالي مين اِطّلاع کري ۞

III.

Translate into Hindustani :—

Where does your brother live? Whose house is this? Show me the way to the village. I cannot see so far. I had finished all my work when he came. I gave him as much as he wanted. My horse fell lame, so I was obliged to walk.

The hot season must have been advanced when he set out, and the sufferings of his followers, owing to want of water and forage, were severe from the first; but all their other miseries were thrown into the shade by those of three days, during which they were misled by their guides, and wandered without relief through the worst part of the desert.

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IV.

Passage for Dictation :—

یُون سُنا ہے کہ ایک دِن کوئی لڑکا دریا کی کناری جاکر پانی میں دیکھنے لگا لہروں کی بیچ اس نے ایک مچھلی دیکھی اور چاہا کہ اس کو پکڑے جلد کِسی درخت کو گیا اور ایک لنبی لکڑی کاٹ کر پھر پانی کی طرف چلا ۞

EXPERIMENTAL SCIENCES.

Friday, 15th July 1870. 10 A.M. to 1 P.M.

1. A bar of steel, having been balanced on a point so as to be perfectly horizontal, is magnetised and replaced in its original position. Will it still retain a horizontal position? If not, how will it behave, and why?
2. A sphere of soft iron is placed in contact with the north pole of a magnet; what is the result? Several similar soft iron spheres are suspended side by side, and the first of them is touched with the south pole of a magnet, at the part most distant from the next sphere. State what is the magnetic condition of each sphere, and describe how they affect each other. Would the result be quite the same if the spheres were made of steel instead of soft iron?
3. You are provided with a rod of iron, a piece of sheet indiarubber, a silk handkerchief, some fragments of paper, and a glass tumbler, and you are required, by means of these, to demonstrate some of the most important fundamental electric phenomena.
4. Describe the different kinds of electric discharge in air, and point out how the character of a electric discharge is affected by different conditions. Can you distinguish which point is electrified negatively, when a discharge takes place in a rarified atmosphere.
5. Give an account of the construction and action of an electrometer and of a voltameter.
6. How would you proceed to charge a Leyden jar from the rubber of a frictional electric machine? How would you charge a battery of Leyden jars by cascade? Describe and explain the operation of discharging a Leyden jar.
7. Describe the construction and explain the action of Bunsen's battery. Of what different arrangements is it susceptible with a view to obtaining different effects with it?
8. How is the zero point fixed in graduating a common thermometer? What is the nature of a differential thermometer? Explain the construction and action of a minimum thermometer.
9. A glass vessel, containing water in which a quantity of ice and also a small quantity of fine sawdust has been placed, is heated continuously, the bulb of a thermometer being immersed in the water. Describe the results successively observed, both in the behaviour of the contents of the vessel and as indicated by the thermometer.

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10. Describe the results produced upon applying a light to a jet from which olefiant gas is escaping. Explain and demonstrate experimentally the cause of the difference in the character of the flame produced in that instance and the results obtained in making a similar experiment with hydrogen and with carbonic oxide.
11. State what you know regarding the occurrence in nature and characteristic properties of chlorine, sulphur, and carbon, and enumerate the principal compounds which they form with oxygen.
12. What are the distinctive properties of iron, steel, copper, lead, tin, and zinc?

NATURAL SCIENCES.

Friday, 15th July 1870. 2.30 P.M. to 5.30 P.M.

1. Name three or more igneous rocks, and give the approximate composition of the minerals of which they are respectively composed.
2. Upon what evidence is it inferred that land conditions obtained during certain portions of the Palæozoic period?
3. Mention one or more instances of unconformable stratification in the Palæozoic rocks, and state the inferences deducible therefrom.
4. Explain the effects of frost and ice as geological agents.
5. Draw up a table showing the succession of the Oolitic system of rocks, and state the districts in Great Britain in which they can be well observed.
6. Name the genera of fossil plants, or other associated fossils, by which you would distinguish Palæozoic from Mesozoic coal.
7. Give a short account of the Wealden formation.
8. State the geological conditions under which rock salt is found in nature, and name the mineral substances which are frequently associated with it.
9. Name any three geological formations, and mention some fossils which are considered characteristic of each of them.
10. In what manner have the original sedimentary materials been consolidated into hard rocks?
11. Give the composition and mode of occurrence of the chief ores of iron.
12. State the crystalline form, hardness, and cleavage of the following minerals: Fluor-spar, Topaz, Felspar, Diamond, Rock crystal, Garnet, and Sapphire.
13. Name four minerals which crystallize in the hexagonal system, and three minerals which belong to the Rhombic system, and state the position of the *axes* in these two systems.
14. Briefly describe the effects produced by any one of the *organic* agencies now in operation.
15. What is understood by subærial denudation? Give examples.
16. Mention some minerals in which water is an essential constituent.

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GEOMETRICAL DRAWING.

Tuesday, 5th July 1870. 2.30 P.M. to 5.30 P.M.

The constructions must be neat and accurate, and be clearly shown by dotted lines. All the work is to be inked in. No written descriptions are necessary, but the letters employed in the questions are to be neatly printed on the problems.

1. Draw a line AB, $3\frac{1}{2}$ inches long; assume a point C about $1\frac{1}{2}$ inches from it, and through C draw CD parallel to AB. Draw also six other lines between AB and CD parallel to these lines, and at $\frac{1}{10}$ inch apart.
2. Set off with your protractor an angle of 57°, and bisect this angle. Again bisect the two angles thus obtained.
3. Draw a square of 3·3 inches side. In it describe four equal circles, each touching one side of the square and the other three circles, Within each of these four circles and with their centres, but with a shorter radius by $\frac{1}{5}$ inch, describe a second circle. Ink in the larger circles with a thin line, the smaller ones with a thick line.
4. Construct a rhombus having an angle of 65° and a base of 3 inches. Measure its two diagonals accurately, and write down their lengths.
5. Draw a triangle having one of its angles =52°, and the two sides containing this angle 1·8 and 2·6 inches. Find the centres of the inscribed and circumscribing circles.
6. Assume three lines, 2 inches, 1 inch, and $2\frac{1}{2}$ inches long respectively, and find a fourth proportional to them.
7. Divide a line 5 inches long into seven equal parts, and describe seven equal circles having their centres in this line, and cutting it at the points of division.
8. Construct a right line figure from the following conditions:—

The side	AB=2 inches.	The angle	ABC=120°
„	BC=1·75 „	„	BCD= 90°
„	CD=2·2 „	„	CDE=120°
„	DE=1·2 „		

Write down the length of the remaining side EA, and the size of the angles DEA, EAB.

LANDSCAPE DRAWING.

Thursday, 14th July 1870. 2.30 P.M. to 5.30 P.M.

[N.B.—The drawing must be entirely free-hand; no instrument or mechanical aid of any kind whatever is allowed.

The paper supplied must not be torn, nor must any other be used, and the drawing must be executed on only one side of the paper.

In question 1 the outline must be firm and even.

The woodcut is to be copied in as accurate facsimile as possible.

In the colour examples, match the tints on the paper close to the patterns; and then apply the colour with one single wash. The inequalities caused by the irregularities in the paper are of no consequence; the patterns have been executed in this way and on a sample of paper inferior to that supplied to you.

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In making drawings from models, or any kind of solids, you will necessarily have to deal with cross-lights, and the objects must be drawn just as they happen to be lighted.

The examples of Part I. should be executed, so far as the candidate is able to do so, before those in Part II. are attempted.]

PART I.

1. Draw a rectangle 6 inches long and 1 inch high, and divide it by lines parallel to the shorter side into five equal rectangles.
2. Make a pencil drawing in light and shade of cone before you, placing it upright, the scale being "life size."
3. Copy accurately with pen and ink the woodcut fixed to your paper.

PART II.

4. Fill the centre and two outer figures of question 1 with flat washes of shades of red, green, and grey respectively, the colours to match those on your paper; and write the name of each colour under your figures, in order to show that you know which is which.
5. Draw from memory the object shown to you for the purpose.
6. Give as complete a representation as you can of the machine, model, or object supplied to you.
7. If you are unable to draw from the solid, copy one of the drawings presented to you.

EXAMINATION FOR ADMISSION TO THE ROYAL MILITARY ACADEMY, WOOLWICH.

TABLE OF MARKS.

TABLE showing the MARKS obtained by the CANDIDATES for ADMISSION to the ROYAL MILITARY ACADEMY at WOOLWICH who were examined under the directions of the Civil Service Commissioners at Burlington Gardens on July 4, 1870, and subsequent days.

SUCCESSFUL CANDIDATES.

Number in Order of Merit.	Number in Examination.	Names.	French.	German.	Hindustani.	Mathematics. Section I.	Mathematics. Section II. and Mixed Mathematics.	English Language and Composition.	History of England, &c.	Geography.	Classics. Latin.	Classics. Greek.	Experimental Sciences.	Natural Sciences.	Drawing.	Total.
		Maxima - - - - - - -	1,000	1,000	1,000	2,000	1,500	1,000	1,000	1,000	1,500	1,500	1,000	1,000	1,000	
1	122	Fownes; Francis Curtis - - - - - -	370	570	—	1,535	1,121	465	—	—	—	—	—	—	790	4,851
2	175	Potts; John William Hastings - - - - -	350	—	—	1,400	575	—	—	—	714	544	580	412	—	4,575
3	61	Barton; Maurice Charles - - - - - -	495	—	—	922	298	485	—	—	928	872	—	—	494	4,494
4	63	Sandys; Edwin Capel Currie - - - - -	575	—	—	1,063	457	555	185	—	754	875	—	—	—	4,464
5	58	Godsal; William Charles - - - - - -	525	570	—	1,039	320	—	—	—	609	565	—	—	814	4,442
6	169	Digby; Thomas - - - - - - -	310	—	—	1,137	430	660	485	—	711	635	—	—	—	4,368
7	28	Neville; John - - - - - - -	395	—	—	1,420	691	—	—	—	533	—	640	—	659	4,338
8	38	Ellis; Charles Conyngham - - - - -	365	—	—	1,330	700	—	—	—	435	346	800	347	—	4,323
9	31	Litton; Daniel Leland - - - - - -	Q	—	—	1,225	775	555	410	—	—	—	835	501	—	4,301
10	120	Kirwan; John Denis - - - - - -	Q	—	—	1,062	425	660	460	—	525	730	—	—	405	4,267
11	32	Maxwell; Ronald Charles - - - - -	500	660	—	1,064	325	—	380	—	595	727	—	—	—	4,251
12	148	Murdoch; John Burn - - - - - -	530	—	—	1,195	889	590	—	450	556	—	—	—	—	4,210
13	50	Lyster; Henry John - - - - - -	Q	—	—	1,047	901	650	335	—	343	280	650	—	—	4,206
14	129	Du Boulay; Ernest de Vismes - - - -	395	520	—	1,225	845	360	—	—	—	—	765	—	—	4,110
15	117	Sharpe; James Birch - - - - - -	375	440	—	1,190	825	—	400	—	—	—	725	—	—	3,955

The letter Q, under a modern language, shows that the candidate has passed a qualifying examination in that language.

TABLE showing the MARKS obtained by the CANDIDATES for ADMISSION to the ROYAL MILITARY ACADEMY.—SUCCESSFUL CANDIDATES—*continued.*

Number in Order of Merit.	Number in Examination.	Names.	French.	German.	Hindustani.	Mathematics.		English Language and Composition.	History of England, &c.	Geography.	Classics.		Experimental Sciences.	Natural Sciences.	Drawing.	Total.
						Section I.	Section II. and Mixed Mathematics.				Latin.	Greek.				
		Maxima - - - - - - -	1,000	1,000	1,000	2,000	1,500	1,000	1,000	1,000	1,500	1,500	1,000	1,000	1,000	
16	46	Banister; Fitz-Gerald Muirson - - - -	323	540	—	1,192	725	—	—	380	—	—	745	—	—	3,905
17	153	Wodehouse; Josceline Heneage - - - -	590	—	—	1,021	594	745	505	420	—	—	—	—	—	3,875
18	167	Liddell; Augustus Frederick - - - -	795	520	—	747	[108]	—	—	—	660	544	495	—	—	3,761
19	123	Foley; Algernon Campbell - - - -	335	—	—	1,294	890	—	335	430	—	—	—	—	451	3,735
20	48	Callwell; Albert Henry - - - - -	315	570	—	1,406	576	—	175	—	—	—	650	—	—	3,692
		UNSUCCESSFUL CANDIDATES.														
21	45	- - - - - - -	458	580	—	924	[219]	—	675	—	612	424	—	—	—	3,673
22	73	- - - - - - -	428	—	—	1,365	615	505	375	365	—	—	—	—	—	3,653
23	53	- - - - - - -	245	—	—	1,294	660	—	—	370	324	271	—	—	488	3,652
24	168	- - - - - - -	525	670	—	914	530	—	460	—	—	—	—	—	550	3,649
25	1	- - - - - - -	470	660	—	745	[40]	—	—	—	653	537	—	—	544	3,609
26	24	- - - - - - -	268	—	—	1,060	933	365	—	395	—	—	585	—	—	3,606
27	8	- - - - - - -	315	—	—	724	[45]	450	—	380	805	890	—	—	—	3,564
28	94	- - - - - - -	225	—	—	1,125	570	365	—	—	—	—	640	—	622	3,547
29	6	- - - - - - -	620	600	—	892	[205]	—	—	710	—	—	—	—	704	3,526
30	177	- - - - - - -	475	500	—	1,038	—	—	—	—	594	723	—	195	—	3,525
31	71	- - - - - - -	675	—	—	1,005	330	—	435	470	—	—	—	—	599	3,514
32	55	- - - - - - -	655	—	—	1,189	887	—	—	380	[229]	[168]	—	—	393	3,504
33	10	- - - - - - -	395	—	—	934	—	540	275	—	599	683	—	—	—	3,426
34	42	- - - - - - -	330	—	—	937	536	—	—	—	—	—	645	519	438	3,405
35	55	- - - - - - -	430	—	—	907	350	—	—	—	553	305	625	224	—	3,394
36	77	- - - - - - -	310	—	—	922	317	540	540	—	361	403	—	—	—	3,393
37	81	- - - - - - -	235	—	—	1,425	615	435	260	—	—	—	420	—	—	3,390
38	9	- - - - - - -	430	—	—	1,072	330	520	535	485	—	—	—	—	—	3,372

**** The marks included in brackets, thus [108], are not counted, being below the prescribed minimum.

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TABLE showing the MARKS obtained by the CANDIDATES for ADMISSION to the ROYAL MILITARY ACADEMY.—UNSUCCESSFUL CANDIDATES—*continued.*

Number in Order of Merit.	Number in Examination.	Names.				French.	German.	Hindustani.	Mathematics.		English Language and Composition.	History of England, &c.	Geography.	Classics.		Experimental Science.	Natural Sciences.	Drawing.	Total.
									Section I.	Section II. and Mixed Mathematics.				Latin.	Greek.				
		Maxima	-	-	-	1,000	1,000	1,000	2,000	1,500	1,000	1,000	1,000	1,500	1,500	1,000	1,000	1,000	
39	178					630			721	535	—	305	—	426	339			382	3,338
40	21					240			1,102	564	325	490	600	—	—			—	3,321
41	34					373			1,002	517	—	445	415	505	—			—	3,257
42	2					285			1,433	457	360	—	395	819	[177]			—	3,247
43	105					475	590		1,438	453	329	—	400	—	—			—	3,242
44	90					440			985	[646]	—	—	280	704	837		204	254	3,222
45	115					375			1,398	773	—	220	280	489	449			579	3,209
46	139					530			773	210	—	—	—	—	—			369	3,197
47	60					190			725	—	425	—	375	—	—			616	3,183
48	152					190			1,314	650	305	355	425	—	—			—	3,170
49	11					323			1,269	400	275	280	—	—	—			—	3,166
50	157					213			902	594	530	335	—	647	518		715	710	3,145
51	33					260			1,055	[765]	—	—	445	—	—			—	3,109
52	92					970			958	[945]	465	490	400	—	—			—	3,099
53	26					200			1,078	971	—	535	525	—	—			—	3,073
54	5					375			1,012	620	390	460	555	—	—			—	3,062
55	23					285			1,091	300	380	425	465	—	—			—	3,031
56	166					250			945	270	380	—	445	—	—			—	2,932
57	111					585			1,198	320	—	320	270	—	[329]			579	2,922
58	146					315			1,095	665	505	[140]	—	474	—			—	2,850
59	30					240			967	819	229	—	—	—	—		369	—	2,840
60	113					440			792	600	325	255	465	420	[190]		240	—	2,832
61	87					275			1,982	302	—	[125]	—	—	—	585	[124]	—	2,824
62	96					295			1,095	[190]	—	260	—	558	364	500	—	250	2,822

*** The marks included in brackets, thus [108], are not counted, being below the prescribed minimum.

TABLE showing the MARKS obtained by the CANDIDATES for ADMISSION to the ROYAL MILITARY ACADEMY.—UNSUCCESSFUL CANDIDATES—*continued.*

Number in Order of Merit.	Number in Examination.	Names.	French.	German.	Hindustani.	Mathematics. Section I.	Mathematics. Section II. and Mixed Mathematics.	English Language and Composition.	History of England, &c.	Geography.	Classics. Latin.	Classics. Greek.	Experimental Sciences.	Natural Sciences.	Drawing.	Total.
		Maxima	1,000	1,000	1,000	2,000	1,500	1,000	1,000	1,000	1,500	1,500	1,000	1,000	1,000	
63	67		—	570		990	[75]	475	380	405	—	—	660	—	—	2,820
64	101		—	410		879	373	205	—	210	—	—	—	—	—	2,737
65	67		320	—		801	317	595	370	—	324	—	—	—	—	2,727
66	16		235	540	564	843	[196]	—	—	—	—	—	490	—	—	2,673
67	124		345	—	—	945	548	405	185	—	—	—	—	—	—	2,608
68	143		250	—	—	920	338	420	—	—	398	—	—	—	—	2,626
69	93		288	—	—	1,027	—	—	225	—	300	—	—	—	—	2,465
70	161		185	—	—	998	434	250	310	—	—	—	—	—	511	2,442
71	97		455	—	—	1,216	271	320	170	—	414	—	—	—	285	2,432
72	66		685	—	—	902	[200]	—	—	345	[218]	[152]	495	[139]	—	2,437
73	98		Q	—	—	854	[168]	—	390	570	—	—	230	374	—	2,418
74	134		385	—	—	850	357	—	[80]	385	—	—	—	—	493	2,414
75	35		248	—	—	797	340	395	385	—	—	—	—	244	—	2,409
76	121		480	310	—	885	[215]	340	480	270	—	—	—	—	—	2,405
77	43		340	—	—	1,012	[60]	340	360	275	—	—	—	—	—	2,327
78	119		328	—	—	900	365	365	[120]	—	—	—	—	—	361	2,319
79	89		580	—	—	751	318	359	—	—	[196]	—	—	—	283	2,291
80	91		208	300	—	771	[62]	260	—	—	—	—	—	—	745	2,264
81	84		185	—	—	873	431	—	—	—	310	[141]	—	—	—	2,294
82	141		460	—	—	745	[60]	—	210	195	[152]	[18]	—	—	719	2,124
83	47		308	340	—	1,107	[215]	—	200	—	[129]	—	295	—	—	2,050
84	40		293	—	—	715	[186]	325	350	—	366	—	—	—	—	2,049

*** The marks included in brackets, thus [108], are not counted, being below the prescribed minimum.
The letter Q, under a modern language, shows that the candidate has passed a qualifying examination in that language.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

ROYAL MILITARY ACADEMY, WOOLWICH, JULY 1870.

TABLE showing the MARKS obtained by the CANDIDATES for ADMISSION to the ROYAL MILITARY ACADEMY.—UNSUCCESSFUL CANDIDATES—*continued.*

Number in Order of Merit.	Number in Examination.	Names.	French.	German.	Hindustani.	Mathematics. Section I.	Mathematics. Section II. and Mixed Mathematics.	English Language and Composition.	History of England, &c.	Geography.	Classics. Latin.	Classics. Greek.	Experimental Sciences.	Natural Sciences.	Drawing.	Total.
		Maxima	1,000	1,000	1,000	2,000	1,500	1,000	1,000	1,000	1,500	1,500	1,000	1,000	1,000	
85	174	"	310	420		839	[110]	—	[155]	—			445			2,004
86	136	"	208	—		876	[124]	385	195	325			—			1,989
87	27	"	210	530		784	[75]	—	—	—			565	180	209	1,948
88	151	"	275	400		743	[94]	290	[120]	—			—	—	—	1,933
89	82	"	[145]	560		733	[70]	380	270	—			—	—	—	1,783
90	106	"	440	450		763	[84]	—	[140]	—			—	—	[145]	1,763
91	22	"	273	550		787	[75]	—	[165]	—			—	—	237	1,727
92	160	"	305	—		706	[80]	—	[140]	—	[175]	[134]	—	—	—	1,661
93	12	"	340	—		780	[9]	180	—	[160]	—	—	235	—	—	1,515
94	149	"	[115]	—		811	[5]	[20]	[20]	—	—	—	—	—	—	1,131
95	109	"	340	—	320	704	[115]	[140]	[165]	[110]	—	—	—	[149]	—	1,044

*** The marks included in brackets, thus [106], are not counted, being below the prescribed minimum.

Note.—In addition to the above, 71 candidates presented themselves, who, having failed to pass a qualifying examination in one or other of the prescribed subjects, were not allowed to proceed with their examination.

4.—EXAMINATION FOR DIRECT COMMISSIONS.

JULY 1870.

REGULATIONS.

(*These were the same as those printed at page* 139.)

EXAMINATION PAPERS.

LATIN.

Thursday, 28th July 1870. 10 A.M. to 1 P.M.

Grammatical Questions.

1. Give the genitive case of *pulvis, abies, species, lacus, palus, jus-jurandum, paterfamilias.*
2. Distinguish *alius, alter, alienus; uter, uterque; unus, unusquisque, unicus; nemo, nullus.*
3. Give the perfect active and past participle passive of *pasco, fodio, torqueo, cerno, pario, vendo, uro.*
4. Give instances of impersonal verbs, and of the government of each. Why are they called impersonal?
5. Have all verbs a participle in *dus?* If not, what class of verbs is without this participle?
6. Give instances of the *Dativus rei*, or point out any instance in any of the short passages before you.
7. What class of verbs governs a double accusative? Give instances.
8. Correct, if wrong:—Ad Athenas ivi. In Roma vixi. Annus erat trecentum quatuor post Roma condita est. Cuique militum tres denarios dedit. Hæc ego dixi, ita responsus sum.
9. Transfer the short passage (4) into the *oratio obliqua.*

Passages for Translation.

[N.B.—*Candidates are recommended to translate one or more of the short passages before proceeding to the passages from authors.* NOT MORE THAN TWO *of the passages from authors are to be attempted.*]

(1.) Brutus plebem ad concionem vocat. Ibi omnium primum jus-jurandum populi recitat. "Neminem regnare passuros, nec esse Romæ "unde periculum libertati foret. Id summa ope tuendum esse: neque "ullam rem, quæ eo pertineat, contemnendam."

(2.) Quum Augustus lustrum in Campo Martio, magna populi frequentia conderet, aquila eum sæpius circumvolavit, transgressaque in vicinam ædem super nomen Agrippæ ad primam ejus litteram consedit.

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(3.) His rebus cognitis, Cæsar Gallorum animos verbis confirmavit, pollicitusque est sibi eam rem curæ futuram ; magnam se habere spem, et beneficio suo et auctoritate adductum Ariovistum finem injuriis facturum. Hac oratione habita, concilium dimisit.

(4.) Præclarum igitur Platonis illud "Non solum," inquit, "scientia "quæ est remota a justitia calliditas potius quam sapientia est appel- "landa, verum etiam animus paratus ad periculum, si sua cupiditate "non utilitate communi impellitur audaciæ potius nomen habeat, quam "fortitudinis."

Viri, quantas pecunias ab uxoribus dotis nomine acceperunt, tantas ex suis bonis, æstimatione facta, cum dotibus communicant. Hujus omnis pecuniæ conjunctim ratio habetur, fructusque servantur : uter eorum vita superarit, ad eum pars utriusque cum fructibus superiorum temporum pervenit. Viri in uxores, sicuti in liberos, vitæ necisque habent potestatem : et, quum paterfamiliæ, illustriore loco natus, decessit, ejus propinqui conveniunt et, de morte si res in suspicionem venit, de uxoribus in servilem modum quæstionem habent, et, si compertum est, igni atque omnibus tormentis excruciatas interficiunt. Funera sunt pro cultu Gallorum magnifica et sumtuosa ; omniaque, quæ vivis cordi fuisse arbitrantur, in ignem inferunt, etiam animalia.

CÆSAR.

Externa libentius in tali re, quam domestica, recordor. Verumtamen quamdiu imperium populi Romani beneficiis tenebatur, non injuriis, bella aut pro sociis, aut de imperio gerebantur ; exitus erant bellorum aut mites aut necessarii. Regum, populorum, nationum portus erat et refugium senatus : nostri autem magistratus imperatoresque ex hac una re maximam laudem capere studebant, si provincias, si socios æquitate et fide defendissent. Itaque illud patrocinium orbis terræ verius quam imperium poterat nominari. Sensim hanc consuetudinem et disciplinam jam antea minuebamus ; post vero Sullæ victoriam penitus amisimus : desitum est enim videri quidquam in socios iniquum, quum exstitisset in cives tanta crudelitas.

CICERO.

Hæc finis Priami fatorum : hic exitus illum
Sorte tulit, Trojam incensam et prolapsa videntem
Pergama, tot quondam populis terrisque superbum
Regnatorem Asiæ : jacet ingens littore truncus,
Avulsumque humeris caput, et sine nomine corpus.
At me tum primum sævus circumstetit horror :
Obstupui : subiit cari genitoris imago,
Ut regem æquævum crudeli vulnere vidi
Vitam exhalantem : subiit deserta Creüsa,
Et direpta domus, et parvi casus Iüli.
Respicio, et, quæ sit me circum copia, lustro.
Deseruere omnes defessi, et corpora saltu
Ad terram misere, aut ignibus ægra dedere.

VIRGIL.

Quis desiderio sit pudor aut modus
Tam cari capitis ? Præcipe lugubres
Cantus, Melpomene, cui liquidam pater
  Vocem cum cithara dedit.
Ergo Quintilium perpetuus sopor
Urget ! cui Pudor et Justitiæ soror
Incorrupta Fides nudaque Veritas
  Quando ullum invenient parem ?
Multis ille bonis flebilis occidit,
Nulli flebilior quam tibi, Virgili.
Tu frustra pius heu non ita creditum
  Poscis Quintilium Deos.
Quod si Threïcio blandius Orpheo
Auditam moderere arboribus fidem,
Non vanæ redeat sanguis imagini,
  Quam virga semel horrida,
Non lenis precibus fata recludere,
Nigro compulerit Mercurius gregi.
Durum : sed levius fit patientia,
  Quidquid corrigere est nefas.

HORACE.

Translate into Latin Prose :—

These things happened in the night. In the morning, as soon as the state of affairs was known, Pelopidas and the other friends of freedom entered the assembly in solemn procession, along with the priests, who bore the sacred symbols of suppliants, and exhorted the spectators to fight for their hearths and altars. The exiles were hailed with shouts of applause as the deliverers of their country, and Pelopidas and others were placed at the head of the government with the title of Bœotarchs, as though to indicate that Thebes was going to resume her ancient place among the cities of Bœotia.

GREEK.

Friday, 29th July 1870. 10 AM. to 1 P.M.

Grammatical Questions.

1. Decline, through all three numbers, θρίξ, πολύς, and σύ.

2. Give the gender and the dative case singular of γένος, ὁδός, φόνος, ὄναρ, δάμαρ, ἰμάς, πελειάς, γῆρας, ἐλπίς, and ὄρνις.

3. Give the feminine form which corresponds to each of the following masculines :— δοῦλος, ἄναξ, βασιλεύς, ἱκέτης, ποιητής, ἱερεύς, αὐλητής, and δοτήρ.

4. Which is right, and why, ἀτιμότερος or ἀτιμώτερος, σοφότερος or σοφώτερος ? Give the comparatives of ἄρπαξ, εὐδαίμων, λάλος, χαρίεις, ἡδύς, and the superlatives of ὀλίγος, κενός, φίλος, ῥᾴδιος, and τάλας.

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5. Which of the Greek cardinal numbers are declined? Write down the numbers, cardinal and ordinal, from four to fourteen.

6. What are the *root* tenses of a Greek verb? Show how the other tenses are formed from them.

7. Give the chief irregular tenses of εἶδω, ἐλαύνω, ἔννυμι, ἔρχομαι, ἱκνέομαι, καίω, κεράννυμι, λαγχάνω, λανθάνω, and ὄλλυμι. (The first person singular of each tense will suffice.)

8. From what verbs do the following forms come, and what part of the verb is each? Ἤγαγε, ἀλούς, ἐθρέψω, κτάς, βεβῶτα, μολών, ὀμεῖ, μέμηνε, ἐμίγη, and πτῶ.

9. What case or cases would you use after each of the following words? Ἔνοχος, ἐνδεής, κληρονομεῖν, μεταδιδόναι, ἕπεσθαι, μεταξύ, φθονεῖν, ὀρέγεσθαι, βλάπτειν, and παραμυθεῖσθαι.

10. What are the chief uses of the subjunctive and optative moods in Greek? Illustrate your answer by examples.

Passages for Translation.

[N.B.—*Candidates are recommended to attempt one or more of the* short passages *before proceeding to the longer passages from authors.* NOT MORE THAN TWO *of the longer passages are to be attempted.*]

Τοῦτο ἀκούσας ὁ Ἡρακλῆς εἰς Τίρυνθα ἦλθε, καὶ τὸ προσταττόμενον ὑπὸ Εὐρυσθέως ἐτέλει. Πρῶτον μὲν οὖν ἐπέταξεν αὐτῷ τοῦ Νεμέου λέοντος τὴν δορὰν κομίζειν. Τοῦτο δὲ ζῶον ἦν ἄτρωτον, ἐκ Τυφῶνος γεγενημένον.

Οἱ Θάσιοι ἔπεμψαν Ἀγησιλάῳ προσιόντι πρόβατα παντοδαπά καὶ βοῦς εὐ τεθραμμένους, πρὸς τούτοις δὲ καὶ τραγήματα. Ὁ δ' Ἀγησίλαος τὰ μὲν πρόβατα καὶ τοὺς βοῦς ἔλαβε, τὰ δὲ τραγήματα πρῶτον μὲν οὐδὲ ἔγνω· κατεκεκάλυπτο γάρ· ὡς δὲ κατεῖδεν, ἀποφέρειν αὐτοὺς ἐκέλευσεν.

Εἰς δὲ Βαβυλῶνα προάγοντος αὐτοῦ, Νέαρχος ἔφη τινὰς ἐντυχεῖν αὐτῷ Χαλδαίους, παραινοῦντας ἀπέχεσθαι Βαβυλῶνος τὸν Ἀλέξανδρον. Ὁ δ' οὐκ ἐφρόντισεν, ἀλλ' ἐπορεύετο· καὶ πρὸς τοῖς τείχεσι γενόμενος, κόρακας εἶδε πολλοὺς διαφερομένους καὶ τύπτοντας ἀλλήλους, ὧν ἔνιοι κατέπεσον παρ' αὐτόν.

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Ἦξεις δὲ Λιγύων εἰς ἀτάρβητον στρατόν,
Ἐνθ' οὐ μάχης, σάφ' οἶδα, καὶ θοῦρός περ ὤν,
Μέμψει· πέπρωται γάρ σε καὶ βέλη λιπεῖν
Ἐνταῦθ'· ἐλέσθαι δ' οὗτιν' ἐκ γαίας λίθον
Ἕξεις, ἐπεὶ πᾶς χῶρος ἐστὶ μαλθακός·
Ἰδὼν δ' ἀμηχανοῦντά σ' ὁ Ζεὺς οἰκτερεῖ.

Διογενὲς Λαερτιάδη, πολυμήχαν' Ὀδυσσεῦ,
Χρὴ μὲν δὴ τὸν μῦθον ἀπηλεγέως ἀποειπεῖν,
Ἥπερ δὴ φρονέω τε, καὶ ὡς τετελεσμένον ἔσται·
Ὡς μή μοι τρύζητε παρήμενοι ἄλλοθεν ἄλλος.
Ἐχθρὸς γάρ μοι κεῖνος ὁμῶς Ἀΐδαο πύλῃσιν,
Ὅς χ' ἕτερον μὲν κεύθῃ ἐνὶ φρεσίν, ἄλλο δὲ εἴπῃ.
Αὐτὰρ ἐγὼν ἐρέω, ὥς μοι δοκεῖ εἶναι ἄριστα·
Οὔτ' ἔμεγ' Ἀτρεΐδην Ἀγαμέμνονα πεισέμεν οἴω,
Οὔτ' ἄλλους Δαναούς· ἐπεὶ οὐκ ἄρα τις χάρις ἦεν,
Μάρνασθαι δηΐοισιν ἐπ' ἀνδράσι νωλεμὲς αἰεί.
Ἴση μοῖρα μένοντι, καὶ εἰ μάλα τις πολεμίζοι·
Ἐν δὲ ἰῇ τιμῇ ἠμὲν κακός, ἠδὲ καὶ ἐσθλός·
Κάτθαν' ὁμῶς ὅ, τ' ἀεργὸς ἀνήρ, ὅ, τε πολλὰ ἐοργώς.
Οὐδέ τί μοι περίκειται, ἐπεὶ πάθον ἄλγεα θυμῷ,
Αἰεὶ ἐμὴν ψυχὴν παραβαλλόμενος πολεμίζειν.

Homer.

ΚΡΕΩΝ.

Οἴμοι, τί δράσω; πότερ' ἐμαυτὸν ἢ πόλιν
Στένω δακρύσας, ἦν πέριξ ἔχει νέφος
Τοσοῦτον ὥστε δι' Ἀχέροντος ἱέναι;
Ἐμός τε γὰρ παῖς γῆς ὅλωλ' ὑπερθανὼν,
Τοὔνομα λαβὼν γενναῖον, ἀνιαρὸν δ' ἐμοί·
Ὃν ἄρτι κρημνῶν ἐκ δρακοντείων ἑλὼν
Αὐτοσφαγῇ δύστηνος ἐκόμισ' ἐν χεροῖν,
Βοᾷ δὲ δῶμα πᾶν· ἐγὼ δ' ἥκω μέτα
Γέρων ἀδελφὴν γραῖαν Ἰοκάστην, ὅπως
Λούσῃ προθῇταί τ' οὐκέτ' ὄντα παῖδ' ἐμόν.
Τοῖς γὰρ θανοῦσι χρὴ τὸν οὐ τεθνηκότα
Τιμὰς διδόντα χθόνιον εὖ σέβειν θεόν.

ΧΟΡΟΣ.

Βέβηκ' ἀδελφὴ σὴ δόμων ἔξω, Κρέον,
Κόρη τε μητρὸς Ἀντιγόνη κοινῷ ποδί.

ΚΡΕΩΝ.

Ποῖ κἀπὶ ποίαν συμφορὰν, σημαινέ μοι.

Euripides.

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Καὶ ἀναβὰς ἐφ' ἵππον καὶ Λύκιον καὶ τοὺς ἱππέας ἀναλαβὼν παρεβοήθει· καὶ τάχα δὴ ἀκούουσι βοώντων τῶν στρατιωτῶν Θάλαττα θάλαττα καὶ παρεγγυώντων. ἔνθα δὴ ἔθεον πάντες καὶ οἱ ὀπισθοφύλακες, καὶ τὰ ὑποζύγια ἠλαύνετο καὶ οἱ ἵπποι. ἐπεὶ δὲ ἀφίκοντο πάντες ἐπὶ τὸ ἄκρον, ἐνταῦθα δὴ περιέβαλλον ἀλλήλους καὶ στρατηγοὺς καὶ λοχαγοὺς δακρύοντες. καὶ ἐξαπίνης ὅτου δὴ παρεγγυήσαντος οἱ στρατιῶται φέρουσι λίθους καὶ ποιοῦσι κολωνὸν μέγαν. ἐνταῦθα ἀνετίθεσαν δερμάτων πλῆθος ὠμοβοείων καὶ βακτηρίας καὶ τὰ αἰχμάλωτα γέρρα, καὶ ὁ ἡγεμὼν αὐτός τε κατέτεμνε τὰ γέρρα καὶ τοῖς ἄλλοις διεκελεύετο. μετὰ ταῦτα τὸν ἡγεμόνα οἱ Ἕλληνες ἀποπέμπουσι δῶρα δόντες ἀπὸ κοινοῦ ἵππον καὶ φιάλην ἀργυρᾶν καὶ σκευὴν Περσικὴν καὶ δαρεικοὺς δέκα· ἦτει δὲ μάλιστα τοὺς δακτυλίους, καὶ ἔλαβε πολλοὺς παρὰ τῶν στρατιωτῶν.

Xenophon.

Ἔπρασσε δὲ ταῦτα μετὰ Γογγύλου τοῦ Ἐρετριέως, ὅπερ ἐπέτρεψε τό τε Βυζάντιον καὶ τοὺς αἰχμαλώτους. ἔπεμψε δὲ καὶ ἐπιστολὴν τὸν Γόγγυλον φέροντα αὐτῷ· ἐνεγέγραπτο δὲ τάδε ἐν αὐτῇ, ὡς ὕστερον ἀνευρέθη, "Παυσανίας ὁ ἡγεμὼν τῆς Σπάρτης τούσδε τέ σοι χαρίζεσθαι βουλόμενος ἀποπέμπει δορὶ ἑλών, καὶ γνώμην ποιοῦμαι, εἰ καὶ σοὶ δοκεῖ, θυγατέρα τε τὴν σὴν γῆμαι καί σοι Σπάρτην τε καὶ τὴν ἄλλην Ἑλλάδα ὑποχείριον ποιῆσαι. δυνατὸς δὲ δοκῶ εἶναι ταῦτα πρᾶξαι μετὰ σοῦ βουλευόμενος. εἰ οὖν τί σε τούτων ἀρέσκει, πέμπε ἄνδρα πιστὸν ἐπὶ θάλασσαν, δι' οὗ τὸ λοιπὸν τοὺς λόγους ποιησόμεθα." Τοσαῦτα μὲν ἡ γραφὴ ἐδήλου, Ξέρξης δὲ ἥσθη τε τῇ ἐπιστολῇ, καὶ ἀποστέλλει Ἀρτάβαζον τὸν Φαρνάκου ἐπὶ θάλασσαν, καὶ κελεύει αὐτὸν τὴν Δασκυλῖτιν σατραπείαν παραλαβεῖν, Μεγαβάτην ἀπαλλάξαντα ὃς πρότερον ἦρχε.

Thucydides.

Ταῦτα λέγων οὐκ ἔπειθε τὸν Ξέρξεα. τέσσερας μὲν δὴ παρεξῆκε ἡμέρας, ἐλπίζων αἰεί σφεας ἀποδρήσεσθαι· πέμπτῃ δὲ, ὡς οὐκ ἀπαλλάσσοντο, ἀλλά οἱ ἐφαίνοντο ἀναιδείῃ τε καὶ ἀβουλίῃ διαχρεώμενοι μένειν, πέμπει ἐπ' αὐτοὺς Μήδους τε καὶ Κισσίους θυμωθεὶς, ἐντειλάμενός σφεας ζωγρήσαντας ἄγειν ἐς ὄψιν τὴν ἑωυτοῦ. ὡς δ' ἐπέπεσον φερόμενοι ἐς τοὺς Ἕλληνας οἱ Μῆδοι, ἔπιπτον πολλοί, ἄλλοι δ' ἐπεσήϊσαν καὶ οὐκ ἀπήλαυνον, καίπερ μεγάλως προσπταίοντες. δῆλον δ' ἐποίευν παντί τεῳ καὶ οὐκ ἥκιστα αὐτῷ βασιλέϊ, ὅτι πολλοὶ μὲν ἄνθρωποι εἶεν, ὀλίγοι δὲ ἄνδρες. ἐγίνετο δὲ ἡ συμβολὴ δι' ἡμέρης. Ἐπεί τε δὲ οἱ Μῆδοι τρηχέως περιείποντο, ἐνθαῦτα οὗτοι μὲν ὑπεξήϊσαν, οἱ δὲ Πέρσαι ἐκδεξάμενοι ἐπήϊσαν, τοὺς ἀθανάτους ἐκάλεε βασιλεὺς, τῶν ἦρχε Ὑδάρνης, ὡς δὴ οὗτοί γε εὐπετέως κατεργασόμενοι.

Herodotus.

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Translate into Greek Prose :—

When Cyrus had reached the age of ten, an accident happened, whereby it was discovered who he was. He was playing one day in the village, along with the other boys of his own age, in the street; and it chanced that the boys chose him from their whole number to be "king." So he proceeded to order them about, and set them their various tasks, as a king would. But Artembares, the son of a noble Mede, was indignant, and refused to do what Cyrus bade him. Then Cyrus told the other boys to seize the rebel; and when they had so done, he punished him very severely with a whip.

MATHEMATICS.

Wednesday, 27th July 1870. 10 A.M. to 1 P.M.

OBLIGATORY PORTION.

Arithmetic.

1. Find the number of sovereigns which are equal in value to two millions three thousand and forty pence.
2. If 8 tons 4 lbs. of sugar are sold for 466*l.* 15*s.* 5*d.*, what is the price of a pound ?
3. Find the number of square feet in 3 acres 1 rood 2 perches.
4. If 12 horses are fed for 17 days at the cost of 11*l.* 1*s.*, how many days can 4 horses be fed for 11*l.* 14*s.*, the price of food and the rate of consumption being the same in both cases ?
5. Find the cost of $5\frac{1}{17}$ lbs. at 1*l.* 16*s.* 10*d.* the pound.
6. From the sum of $\frac{1}{1\cdot5}$ and $\frac{3}{4}$ of $1\frac{1}{2}$ subtract the sum of $\frac{1}{1\cdot2}$ and ·3 of $3\frac{1}{2}$.
7. Express 89 gallons 1 quart 1 pint as the decimal of 572 gallons.
8. Find the number of grains in ·35 of 3 lbs. 1 oz. troy.
9. What is the simple interest on 429*l.* 3*s.* 4*d.* in 4 years at $2\frac{1}{2}$ per cent. per annum ?
10. Extract the square root of 3312400.

VOLUNTARY PORTION.

1. Equal triangles which have one angle of the one equal to one angle of the other, have their sides about the equal angles reciprocally proportional.

   If the sides above mentioned are in one triangle 63 and 84 feet in length, and in the other triangle are such that one is three times as long as the other, what are the lengths of these sides in the latter triangle ?
2. Planes to which the same straight line is perpendicular are parallel to one another.
3. Solve the following equations :—

$$(1.)\ x^2 - 3x = 10.$$

$$(2.)\ \left.\begin{aligned} x^2 - y &= 3 \\ x - y^2 &= 1 \end{aligned}\right\}.$$

4. In how many different ways can six books be piled on a table, one upon another, so that one specified book shall always be the lowest but one ?

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5. Compute to five places of decimals the value of the fraction

$$\frac{\cot 127°\,13'\,20''}{2{\cdot}606837},$$

having given

L tan 37° 13′	=	9·8805277
Diff. for 1′	=	·0002623
Log 2·6068	=	·4161077
Diff. for ·0001	=	·0000167
Log 2·91408	=	·4645012

6. The sides of a triangle are 183·4 and 129·7 feet in length, and they include the angle 37° 10′. Find the other angles of this triangle, having given

Log 5·37	=	·7299743
Log 3·131	=	·4956831
L cot 18° 35′	=	10·4733850
L tan 27° 1′	=	9·7074781
Diff. for 1′	=	·0003121

7. The circumference of a circle being 4 chains 2 links, find its area in decimal parts of an acre. [Take $\frac{1}{\pi} = {\cdot}3183$].

8. A uniform rod of given weight, W, can turn about one of its ends as a fulcrum, and is sustained in a horizontal position by a given force, P, acting at the other end. Find the direction in which the force P acts, and determine the pressure on the fulcrum. Prove that P cannot be less than the half of W.

MATHEMATICS.

Wednesday, 27th July 1870. 3 P.M. to 6 P.M.

OBLIGATORY PORTION.

Euclid.

1. Give Euclid's definitions of a right angle, of a semicircle, of parallel straight lines, and of similar segments of circles.

   State the axiom that relates exclusively to straight lines, state the axiom that relates exclusively to *parallel* straight lines.

2. If two triangles have two sides of the one equal to two sides of the other, each to each, and have likewise their bases equal, the angle which is contained by the two sides of the one shall be equal to the angle contained by the two sides equal to them of the other.

3. Describe a parallelogram equal to a given rectilineal figure and having an angle equal to a given rectilineal angle.

   Can a rectangle always be described on a given straight line equal to a given rectilineal figure.

4. If a straight line be divided into two equal parts, and also into two unequal parts, the rectangle contained by the unequal parts, together with the square of the line between the points of section, is equal to the square of half the line.

5. Draw a straight line to touch a given circle from a given point without it.

Algebra.

1. Show, by substitution, that $(x + y)^2$ has the same value as $x^2 + 2xy + y^2$ when $x = 10$ and $y = 2$, find $\sqrt{1 + x^3}$ when $x = 2$.

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2. Perform the operations indicated in the following examples :

(1.) $\left(\frac{a}{2} \div 2b\right) + \left(2a - \frac{b}{2}\right) - \frac{3}{2}(a - b)$.

(2.) $(x^3 - 2x^2y + 3xy^2 - 4y^3) \times (x^3 - 2x^2y - 3xy^2 + 4y^3)$.

(3.) $(x^6 - 9x^4 + 24x^3 - 22x^2 + 8x - 1) \div (x^3 + 3x^2 - 4x + 1)$.

(4.) $\frac{(x^2 - y^2)^2 \times (x + y)^2}{(x - y)^2}$.

3. Reduce to its lowest terms $\frac{a^2 - b^2 - 2bc - c^2}{a^2 + 2ab + b^2 - c^2}$.

4. Prove $\frac{a + c}{(a - b)(x - a)} + \frac{b + c}{(b - a)(x - b)} = \frac{x + c}{(x - a)(x - b)}$.

5. Solve the following equations :

(1.) $\frac{11x + 4}{21} - \frac{3x - 4}{7} = 2$.

(2.) $\frac{(x - 2)(x - 3)}{x - 1} = \left(x - \frac{15}{4}\right)$.

(3.) $\left.\begin{aligned} 5x - 4y &= 20 \\ 7x + 3y &= 114 \end{aligned}\right\}$.

6. Two steam engines working together can pump the water out of a mine in 40 hours, one of the engines working alone can do it in 60 hours, in what number of hours will the other engine, working alone, pump the water out of the mine ?

ENGLISH LANGUAGE AND COMPOSITION.

Tuesday, 26th July 1870. 10 A.M. to 1 P.M.

(*Only one of the two subjects for Composition is to be attempted.*)

Subject for Composition :

either,

1. "A civil war is like the heat of a fever, but a foreign war is like the heat of exercise." BACON.

or,

2. "The advantages of travel."

3. Explain the meaning of these words: *Substantive, adjective, mood, tense, case, accidence, grammar.*

4. State what *classes* of words are derived from the French, the Latin, and the Anglo-Saxon respectively ; and illustrate your answer by a few instances of each class.

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5. What is the meaning of such terminations or suffixes as *dom* in kingdom; *hood* in brotherhood; *ful* in thankful; *ship* in friendship; *ly* in manly; *wise* in likewise; *er* in widower; *ry* in rookery?
6. What rules of grammar are violated in the following sentences?—1. "Is she as tall as me?" 2. "It is not for such as us to sit with the rulers of the land." 3. "Let you and I endeavour to improve ourselves." 4. "Which none but Heaven and you and I shall hear." 5. "When all slept sound save she who bore them both." 6. "There are such a number of idlers about."
7. Correct such of the following passages as need correction:—
   1. "Had he only have looked at my letter he would have seen."
   2. "The house of Baal was full from one end to another."
   3. "There is tears for his love, joy for his fortune, and death for his ambition."
   4. "He with his family were taken to prison."
   5. "Where no false lustre, wealth, or power appear."
   6. "None but I am able to do it."
8. What are the true singulars of these plurals, *kine*, *swine*, *shoon*, *pence*, *news*; and the plurals of these singulars, *alms*, *riches*, *amends*?
9. Simplify the construction of the following sentence, retaining as far as possible the words of the original:

   "In which place he (Sir Harry Vane) had so ill fortune (his working and unquiet fancy raising a thousand scruples of conscience which they (the Colonists) had not brought over with them, nor heard of before) that he, unsatisfied with them and they with him, he transported himself into England."

FRENCH.

Thursday, 28th July 1870. 3 P.M. to 6 P.M.

I.

Translate into English:—

Pour donner à son commerce l'essor et la sécurité, Carthage n'avait besoin que de la tranquille possession des îles et du littoral. Quelque restreintes que fussent ces prétentions, il fallait des armées pour les réaliser. Mais du moment où la guerre n'est plus qu'une affaire de commerce, un moyen d'assurer la rentre des fonds, et le placement des marchandises, pourquoi ne paierait-on pas des soldats, comme on paie des facteurs et des commis? Les républiques italiennes du 15^{me} siècle avaient des condottieri; Carthage eut des mercenaires. On achetait des chevaux et des navires; on acheta des hommes, et depuis les Alpes et les Pyrénées jusqu'à l'Atlas, il y avait tant d'épées à vendre! Chacun des comptoirs de Carthage était aussi un bureau de recrutement. Les prix étaient bas, car il y avait grande concurrence parmi ces barbares avides et pauvres, qui cernaient l'étroite lisière des possessions Carthaginoises. D'ailleurs Carthage faisait bien les choses. Elle embarquait les femmes, les enfants, et jusqu'aux effets de ses mercenaires. C'étaient autant d'otages de leur fidélité, ou après une campagne meurtrière, des héritages pour le trésor.

Duruy, Histoire Romaine.

II.

Grammatical Questions.

1. A substantive cannot be governed by two verbs, unless they have both the same *régime*. Give examples.
2. Give examples to show the difference between *chaque* and *chacun*.
3. Mention any *conjonctions* that are always followed by the subjunctive; account for the use of that mood.
4. Give the first person of the primitive, and the first person of the derived tenses of the following verbs: *aller*, *savoir*, *prévoir*, *taire*.
5. Les ennemis se sont *vu* rejeter loin de nos frontières. Why is the participle *vu* invariable in the preceding sentence? State the rule.

III.

Essai.

[Only one of the two subjects is to be attempted.]

A.—Draw a short parallel between Annibal and Alexander the Great.

B.—Point out in a short letter the chief advantages of the military life.

IV.

Translate into French:—

Julius Cæsar, the first emperor of the Romans, was in an eminent degree possessed of humanity and greatness of soul. After having vanquished Pompey the Great at the battle of Pharsalia, he pardoned those whom, according to the laws of war, he might have put to death; and not only gave them their lives, but also restored them their fortunes and their honours. Upon which, Cicero, in one of his orations, makes this beautiful remark, speaking to Julius Cæsar: "Fortune could not do "more for you than give you the power of saving so many people; "nor nature serve you better than in giving you the will to do it." You see by that, what glory and praise are gained by doing good, besides the pleasure which is felt inwardly, and exceeds all others.

Chesterfield.

Dictation:—

Épuisé par les travaux de la journée, je n'avais durant la nuit que quelques heures pour délasser mes membres fatigués. Souvent il m'arrivait pendant ce court repos d'oublier ma nouvelle fortune, et lorsqu'aux premières blancheurs de l'aube, les trompettes du camp venaient à sonner l'air de diane j'étais étonné d'ouvrir les yeux au milieu des bois. Il y avait pourtant un charme à ce réveil du guerrier échappé aux périls de la nuit. Je n'ai jamais entendu, sans une certaine joie belliqueuse la fanfare du clairon répétée par l'écho des rochers. J'aimais à voir le camp plongé dans le sommeil; les tentes encore fermées, d'où sortaient quelques soldats à moitié vêtus; le centurion qui se promenait devant les faisceaux d'armes, en balançant son cep de vigne; la sentinelle immobile qui pour résister au sommeil tenait un doigt levé dans l'attitude du silence; le cavalier qui traversait le fleuve coloré des feux du matin; le victimaire qui puisait l'eau du sacrifice; et souvent un berger, appuyé sur sa houlette qui regardait boire son troupeau.

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GERMAN.

Saturday, 30th July 1870. 12 M. to 2 P.M.

I.

Translate into English:—

Der berühmte General Elliot ritt eines Tages bei der Belagerung von Gibraltar selbst herum, und traf bei dieser Gelegenheit einen deutschen Soldaten an, der weder sein Gewehr ergriff noch praesentirte, sondern unbeweglich da stand. „Kennst „du mich nicht, mein Sohn?" redete der General den Soldaten an, „oder warum beobachtest du deine Pflicht nicht?" Der Soldat erwiderte mit Fassung: „Ich kenne Sie, Herr General, und meine „Pflicht sehr gut; aber so eben sind mir zwei Finger an der „rechten Hand abgeschossen worden, daher bin ich nicht im „Stande, das Gewehr zu halten." „Warum gehst du denn „nicht, um dich verbinden zu lassen?" fuhr Elliot fort. „Weil „es in Deutschland," antwortete der Soldat, „nicht erlaubt ist, „seinen Posten eher zu verlassen, als bis man abgelöst wird." Da stieg der General augenblicklich vom Pferde und sagte: „Gib „mir dein Gewehr; ich will dich ablösen, damit du dich „verbinden lassen kannst." Der Soldat gehorchte, ging aber zuvor an die nächste Wache, zeigte an, daß der General auf dem Posten stehe, und ließ dann erst seine verstümmelte Hand verbinden.

II.

Translate into German:—

"The subjects of a British king," says Cobbett, "like the sons of "every provident and tender father, never know his value till they "feel the want of his protection. In the days of youth and ignorance "I was led to believe that comfort, freedom, and virtue were exclu-"sively the lot of republicans. A very short trial convinced me of my "error, admonished me to repent of my folly, and urged me to com-"pensate for the injustice of the opinion which I had conceived. "During an eight years' absence from my country I was not an "unconcerned spectator of her perils, nor did I listen in silence to the "slander of her enemies. England's happiness and glory were the "objects of my constant solicitude. I rejoiced at her victories, I "mourned at her defeats; her friends were my friends, her foes were "my foes."

III.

Grammatical Questions.

1. Decline Ein schöner Garten.
2. Give the gender, the genitive singular, and the nominative plural of Berg, Burg, Schloß, Schuß, Offizier.
3. Give the first person of the imperfect indicative and the past participle of sprechen, singen, rufen, rauben, reiben.

4. Mention three verbs which govern the dative case.
5. Which of the following verbs are separable : unternehmen, überſetzen, auftragen, zubringen, vergehen, bereiten ?
6. Give the derivation of Aufmerkſamkeit, Überfluß, Unvorſichtigkeit.

IV.

Theme for an Essay in German : "Honesty is the best policy."

V.

Dictation :—

Es war für Wallenſtein von äußerſter Wichtigkeit, die Stadt Stralſund am baltiſchen Meere in Beſitz zu bekommen. Ihr vortrefflicher Hafen, die leichte Uberfahrt von da nach den ſchwediſchen und däniſchen Küſten machte ſie vorzüglich geſchickt, in einem Kriege mit beiden Kronen einen Waffenplatz abzugeben. Er ſchickte ſich an die Stadt zu belagern, obwohl nichts abenteuerlicher zu ſein ſchien als einen Seeplatz, der auf's vortrefflichſte befeſtigt war, erobern zu wollen, ohne ſeinen Hafen einzuſchließen. „Ich will," ſagte er, „dieſe Stadt wegnehmen, und „wäre ſie mit Ketten an den Himmel gebunden." Aber Wallenſteins Glück ſcheiterte vor dieſer Stadt ; nach mehreren verlorenen Monaten, nach einem Verluſt von 12,000 Todten mußte er ſeinem Vorhaben entſagen.

ITALIAN.

Friday, 29th July 1870. 3 P.M. to 6 P.M.

I.

Grammatical Questions.

1. Give the gender and the plural number of *clima*, *labbro*, *mano*, *monarca*.
2. What is the difference between *ciliegio* and *ciliegia*, *pero* and *pera*, *pesco* and *pesca* ?
3. What is the difference between *questo*, *quello*, and *codesto* ?
4. Give the first person singular and the first person plural of the present tense of the indicative mood of the verbs *andare*, *cogliere*, *dire*, *fare*, *udire*.

II.

Translate into English :—

Si concludeva il giorno diecinove febbraio (1797) a Tolentino il trattato di pace fra il Papa e la Repubblica di Francia. Si obbligava il Pontefice a recedere da qualunque lega segreta o palese contro la Repubblica ; a non dar soccorsi nè d'armi, nè di soldati, nè di viveri, nè di denaro, nè di navi a chi nemico ne fosse ;—a licenziare i reggimenti

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nuovi, a serrare i porti ai nemici di Francia, ad aprirli ai Francesi;—al cedere alla Francia Avignone, il contado e le dipendenze; al cedere ugualmente le legazioni di Bologna e di Ferrara, con ciò però che non vi si facessero novità pregiudiciali alla religione cattolica;—al consentire che la città, la cittadella, ed il territorio d'Ancona sino alla pace si depositassero in mano della Repubblica.

Botta.

III.

Mentre i Vandali passavano in Africa, i Franchi di Germania tentavano passare il Reno (429) e fermarsi nelle prossime regioni delle Gallie, cioè nella prima Germania e nella seconda Belgica, sì come si congettura per alcune parole d'Apollinare Sidonio. Ma Erio, condottosi per breve ora sulle rive di quel fiume, pervenne a scacciarli, ed a rimettere sotto le leggi dell'Imperio i paesi occupati da' Barbari.

Troya.

IV.

Translate into Italian:—

The Genoese, who, after the recovery of Constantinople, were seated in the suburb of Pera or Galata, received that honourable fief from the bounty of the Emperor. They were indulged in the use of their laws and magistrates; but they submitted to the duties of vassals and subjects . . . . . Genoa sealed a firm alliance with the Greeks; and, in case of a defensive war, a supply of fifty empty galleys and a succour of fifty galleys completely armed and manned was promised by the republic to the empire. In the revival of a naval force it was the aim of Michael Paleologus to deliver himself from a foreign aid; and his vigorous government contained the Genoese of Galata within those limits which the insolence of wealth and freedom provoked them to exceed.

Gibbon.

V.

Dictation:—

Era la mattina del primo maggio quando la repubblica Veneziana doveva cadere da per se stessa nell' agguato che le era teso. Era il palazzo pubblico circondato per ogni parte da genti armate, i cannoni presti, le miccie accese, apparato insolito da tanti secoli in quella quieta repubblica. Custodivano per antico rito gli arsenalotti le interiori stanze del palazzo; i capi di strada pieni di uomini in armi; si maravigliava il popolo, ignaro della cagione, a quel romore soldatesco; la città tutta occupava un grandissimo terrore.

MODERN GREEK.

The papers set in the examination in Modern Greek were similar in character to the Italian papers.

SPANISH.

I.

Grammatical Questions.

1. Give the first person singular and the first person plural of the indicative mood of the verbs *ir*, *andar*, *coger*, *decir*, *hacer* and *oir*.
2. Give the gender and the plural number of *clima*, *cárcel*, *zaquizamí*, *pez*, *pescado*, *árbol*, *paz*.
3. Mention any conjunctions that are always followed by the subjunctive. Account for the use of that mood.
4. *Translate into English :—*
   a. No hagais tales cosas.
   b. Deberiais tarde ó temprano arrepentiros de ellas.
   c. Considerad cada dia todo lo mas bueno y perfecto que os enseña y manda la ley divina y lo que la sociedad puede exigir con razon de vosotros.
5. *Translate into Spanish :—*
   1. It is very curious, she knows nobody so learned as her own eldest brother.
   2. Charity is the first of his virtues.
   3. Since his return from the college he goes almost every evening to see his mother, who lives at Chelsea, near the Thames.

II.

Translate into Spanish :—

A very dear friend of mine and of many others to whom literature is a staff, had died. To say that his family had claims on Charles Dickens is to say that they were promptly acknowledged and satisfied with the grace and heartiness which double the gift, sweeten the bread, and warm the wine. I asked a connexion of our dead friend whether he had seen the poor wife and children? "Seen them!" he answered, "I was there to-day. They are removed into a charming cottage; "they have everything about them: and just think of this; when I "burst into one of the parlours, in my eager survey of the new home, "I saw a man in his shirt sleeves, up some steps, hammering away "lustily. He turned. It was Charles Dickens; and he was hanging "the pictures of the widow!" Dickens was the soul of truth and manliness as well as kindness; so that such a service as this came as naturally to him as help from his purse. His friend, Paul Féval, has said over his grave, "Nothing in him was false; not even his "modesty."

III.

Translate into English :—

Hasta aquí las comunicaciones eran mas corteses que hostiles. Mas no por eso, cuando ya los campos comenzaron á acercarse, dejaron los dos partidos de hacerse la guerra de intriga, frecuente siempre en las

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discordias civiles, cuando los ánimos no estan enconados. Los recien venidos ponderaban su fuerza: los de Almagro, con mas cautela y mejor efecto, les insinuaban que las ricas provincias de aquella gobernacion estaban aun por repartir, y que mas cuenta les tenia entrar con ellos pacíficamente á la distribucion, que ir con su general á buscar tierras inciertas, y acaso otros puertos de nieve donde acabar de perecer. Empezó tambien la desercion: de la parte de Almagro se pasó á la de Alvarado el intérprete Felipillo, y al mariscal se pasó Antonio Picado, secretario del general de Guatemala. No pudo este llevarlo en paciencia, pues al instante mandó salir el grueso de su gente, tendidas las banderas, y en son y aparato de guerra se acercó á Riobamba, con ánimo de no guardar miramiento ninguno, y romper las hostilidades si no le entregaban su secretario. Almagro, que no tenia mas que ciento y ochenta hombres contra cuatrocientos que venian sobre él, no desmayó por eso, y fiado en el valor y resolucion de su gente y en los manejos secretos que tenia en el campo enemigo, aguardaba á su adversario sin temor, y animaba á los suyos con palabras de esfuerzo y confianza.

IV.

Dictation:—

El gran capitan Gonzalo Fernández de Córdoba pasaba muchas veces por la puerta de dos doncellas, hijas de un pobre escudero, de las cuales mostraba estar aficionado, porque en extremo eran hermosas. Entendiéndolo el padre de ellas, y pareciéndole que seria buena ocasion para remediar su necesidad, fuése al gran capitan, y suplicó le proveyese de algun cargo fuera de la ciudad, en que se ocupase. Entendiendo el gran capitan que lo hacia por dejar la casa desocupada, para que, si él quisiese, pudiese entrar libremente, le preguntó: "¿Qué gente dejais en vuestra casa?" Respondió: "Señor, dos hijas doncellas." Díjole: "Esperad aquí, que os sacaré la provision;" y entró en una cámara y sacó dos pañizuelos, y en cada uno de ellos mil ducados, y dióselos, diciendo: "Veis aquí la provision: casad luego con esto que va ahí vuestras hijas; y en lo que á vos toca, yo tendré cuidado de proveerlo."

HINDÛSTÂNÎ.

I.

Grammar.

1. Explain the use of the symbols called "*hamza*," "*waṣla*, *tanwîn*.
2. Give the feminine forms of *ghorā*, *sher*, *hāthī*, *rājā*, *bhā'ī*, *haran*, *dhobī*, with their meanings.
3. How many genders and numbers are there in Hindûstânî? Mention the usual terminations of feminine nouns with some common exceptions.
4. What are the inflected forms of *yih*, *wuh*, *kaun*, *kyā*, *so*, *ko'ī*, *kuchh*, and *jo ko'ī?*
5. Give the rules for forming the comparative and superlative of adjectives.
6. Give the second person singular of each of the nine principal tenses of *bolnā*.

II.

Translate into English:—

جو دانا لڑکا هَي وہ اپنِي کِتاب اپنِي گهر مين بي کهي
پڑهتا هَي اَور نادان لڑکا اپنِي کِتاب کو کهيل کي واسطي طاق
پر ڈال رکهتا هَي اگرچہ اُس کي ما باپ اُس بد چال سي هزار
منع کرين پهلا لڑکا اُس اصيل گهوڑي کِي طرح هَي کِہ جِس کي
واسطي کوڑا ضرور نهين اَور دوسرا اُس منہ زور خچّر کي برابر
هَي جو لگام نهين مانتا *

III.

Translate into Hindûstânî:—

I was sitting in the house when he arrived. He gave me a book, and I began to read. The door was open and I saw the horse coming near. I told the servant to catch him, but he could not. At night time a soldier appeared riding upon the horse. I was very glad to see it again.

HISTORY AND GEOGRAPHY.

Tuesday, 26th July 1870. 3 P.M. to 6 P.M.

(*It is possible to obtain full marks by answering eight questions.*)

1. Describe the characters (not the reigns) of William the Conqueror and his sons.
2. Explain the nature and objects of the Constitutions of Clarendon.
3. Show, by reference to facts, what were the principal causes of dissension between king and people in the reigns of the Plantagenets.
4. State the origin of the Wars of the Roses, and the effect they had on the condition of England.
5. Were any efforts made by Elizabeth and James I. in support of the Protestant cause on the Continent?
6. What parts did Pym and Falkland, Essex and Fairfax, respectively play in the reign of Charles I.?
7. Mention any alarming agitations which broke out in Scotland in the reigns of Charles I., Charles II., and George II.
8. In what circumstances did the wars terminated by the treaties of Ryswick, Utrecht, Paris (1763), and Amiens respectively originate?
9. Give some account of Lord Clive, Mr. Burke, Mr. Canning, and General Sir Charles Napier.
10. Draw a map of England, with Wales. Show the directions of the chief rivers by lines, with the names.

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11. Draw a map of Spain. Show the directions of the great rivers. Also mark the situations of battle fields on which British troops have fought by asterisks (*), with the names.
12. Who were Solon and Lycurgus? Describe the character of their laws.
13. Mention the chief events in the Peloponnesian War.
14. Write a short account, *either* of the Persian Wars, *or* of the contest between Pyrrhus and Rome.
15. Describe very briefly the conquest of Spain, Macedon, and Gaul by Rome.
16. Draw as complete a map as you can, *either* of ancient Greece, *or* of ancient Italy.

NATURAL SCIENCES.

Saturday, 30th July 1870. 4 P.M. to 6 P.M.

N.B.—*Not more than* ten *of the following questions are to be answered.*

1. Draw a figure of a crystal of quartz. Point out the directions in which such a crystal produces double refraction and no double refraction respectively.
2. State the composition, the system of crystallization, and the ordinary lustre of galena, diamond, blende, topaz, and fluor.
3. Describe the characters of selenite, give the direction of its cleavage and the situations in which the mineral is most common. Selenite is often produced in pyritous clays when exposed to the weather: explain how that comes about.
4. What are zeolites? Name some species of zeolites. In what situations are they usually met with? Why are they supposed to have been formed after the rocks in which they occur were formed?
5. What is the most common ore of tin? What is its composition and crystalline form? In what sort of rocks is it met with, and how is it separated from the other minerals with which it is associated in order to prepare it for smelting?
6. Give the blowpipe characters of copper pyrites, brown hæmatite and manganite.
7. Give a classification of igneous rocks, with some examples of each class. To which classes do you refer greenstone, syenite, trachyte, and serpentine respectively?
8. Define porphyry, gravel, chert, gneiss, schist, granite, grit, and travertin. Mention granite rocks which have assumed their present position since the beginning of the tertiary period, and the evidence for such an assertion.
9. Describe the phenomena of basaltic dykes. What is the mineral composition of basalt? What is the law which regulates the direction of the prisms?
10. Define *strike*. What is the general strike of the oolitic strata of England, and to what causes is it due?
11. Point out at least three well marked breaks in the continuity of the stratified deposits of this country, and explain the evidence on which your statement is founded.
12. Give the subdivisions of the tertiary strata of England, and the parts of the country in which they occur. Which of them appear to have been freshwater or estuarine deposits, and what is the evidence of this?

13. Describe the general characters of a cephalopod. In what strata are belemnites, ceratites, and nautilus respectively found fossil? What genera of cephalopods with external shells are found recent?
14. State the classes to which the following fossil species severally belong, and the formations in which they are severally most abundant:—ammonites communis, ananchytes ovatus, productus martini, asaphus tyrannus, iguanodon mantelli, nummulites lævigatus, calamites suckowii, mastodon giganteus.
15. Explain the origin of the surface soil, and why it is comparatively rarely met with interstratified with other deposits. Mention instances in which it is met with so interstratified.
16. Give an account of the formation of icebergs and how they acquire loads of stones. In what respects do the bergs of the Antarctic seas differ from those of the Arctic seas, and what causes the difference?
17. Explain the formation of deltas, and the assortment of the materials composing them.
18. Describe the phenomena of the lagoon islands of the Pacific, and give a theory of their origin.

EXPERIMENTAL SCIENCES.

Saturday, 30th July 1870. 10 A.M. to 12 M.

N.B.—*Not more than* ten *of the following questions are to be answered.*

1. Describe the construction and explain the action of a *minimum* thermometer. Explain why such an instrument, if freely exposed to the sky, will not give accurately the minimum temperature of the air.
2. State the law of expansion of air for changes of temperature. A certain weight of air occupies 5·6 cubic inches at 21° C.: how much will it occupy at 99° under the same pressure?
3. Give the observed laws of fusion and solidification by heat or cold, and explain how to make an experiment in confirmation of the truth of these laws in the case of tin. What is meant when it is said that the latent heat of tin is 14·25?
4. What is the relation between the radiating and absorbing powers for heat of the same surfaces? Give some experiment in illustration of the truth of your statement. Considering this relation between absorbing and radiating powers, how does it come to pass that different bodies placed in sunshine acquire different temperatures?
5. Describe one form of hygrometer, and explain its action.
6. Give an account of the different modifications of sulphur, and how they are severally obtained. How much sulphuretted hydrogen and sulphuric acid, respectively, can be obtained from 54·4 grs. of sulphur? (S = 32.)
7. Describe a method of preparing and collecting chlorine, and explain the chemistry of the process. Explain the action of chlorine on sulphuretted hydrogen.
8. State the chemical composition of marble, coal, rust of iron, alum. How can you distinguish potash alum from ammonia alum?

DIRECT COMMISSIONS, JULY 1870.

9. What are the chief chemical characters of an alkali? Name the alkalies. How can soda be obtained from the carbonate?

10. Explain the blackening of a china plate when it is held in the flame of a gas lamp. Also why the brilliancy of an oil lamp is increased by the use of a glass chimney.

11. Give blowpipe tests for manganese and magnesia, and liquid tests for zinc sulphate, explaining how to apply the tests and the results of them.

12. State the laws of induction in static electricity, and give some experimental illustrations of them. Show that the fact that the two coatings of a Leyden jar are usually unequally charged is in accordance with those laws.

13. An iron bar supported on a gutta percha stand has pairs of pith balls hung from it by cotton at different points, state how the balls will behave when the bar is electrified. Explain how they will be affected if you approach your hand to one end of the bar without drawing a spark.

14. Describe the construction of a galvanometer, and the mode of using it. If you want to make one hundredth part of the current from a battery, and no more, pass through your galvanometer, explain how you would effect this.

15. A silver and a copper plate are soldered together and immersed in a solution of copper sulphate, state and explain the result. After a time all action will cease; explain when that will happen.

16. You want to make a powerful permanent magnet; what would you choose to make it of, and how would you proceed to make it, supposing you were not provided with any other magnet? Which end of the magnet so made would point to the north if the magnet were hung up by a thread?

17. Define the declination of a compass. What is, roughly, the amount of the declination in London? Explain how it varies if you travel due north from London. What is the general course of the agonic line?

FREEHAND DRAWING.

Friday, 29th July 1870. 4.30 P.M. to 6 P.M.

[No instruments of any kind allowed.]

1. Draw an oval having its longer diameter equal to $2\frac{1}{2}$ inches and its shorter to $1\frac{1}{2}$ inches.

2. Copy as accurately as you can the drawing placed before you.

3. Make a copy in any method you prefer of any portion of the photograph placed before you.

GEOMETRICAL DRAWING.

DIRECT COMMISSIONS, JULY 1870.

Friday, 29th July 1870. 3 P.M. to 4.30 P.M.

[*The constructions must be neat and accurate, constructive lines being shown in dots. No written descriptions are necessary. All the work is to be inked in.*]

1. Draw 9 circles of $\frac{3}{4}$ inch radius in three rows, their centres to be in lines parallel to each other and $1\frac{1}{2}$ inches apart.

2. Draw a circle with a radius of $\frac{3}{4}$ inch. Inscribe and circumscribe this circle with two equilateral triangles having their sides parallel.

3. Find a mean proportional between two lines $2\frac{1}{4}$ inches and $\frac{3}{4}$ inch long, and figure its length on the diagram.

4. Draw a regular hexagon of $1\frac{1}{2}$ inches side and within it six equal circles, each touching two other circles and also two sides of the polygon.

5. Draw a circle with a radius of 1 inch, and place in it a chord such that the angle standing on it and having the point in the circumference may be 47°.

Examination for Direct Commissions, July 1870.

Table of Marks.

Return showing the Number of Marks gained in each subject by the Candidates for Direct Commissions who were examined at Burlington Gardens, on July 25th, 1870, and subsequent days.

Successful Candidates.

Number.		Name.	Number of Marks obtained.																		
			Mathematics.						Classics.									Drawing.			
			Obligatory.																		
In Order of Merit.	In Examination.		Arithmetic.	Euclid and Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum - - -	500	700	1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		
		Minimum - - -	200	—	400	—	200	200	333	266	200	200	200	200	200	200	200	200	100		1,500
1	416	Digby; Thomas - - - -	431	645	1,076	1,630	754	1,150	1,466	893	445	—	—	—	—	—	—	—	—	—	7,408
2	198	Walker; Montagu Charles Brudenel Forestier.	442	670	1,112	1,970	453	800	1,345	513	—	846	—	—	—	—	—	—	—	—	7,039
3	291	Heath; Harry Heptinstall Rose -	420	590	1,010	682	1,150	1,150	1,370	969	[140]	—	—	—	—	—	—	—	—	—	6,331
4	562	Bethell; Richard L. - - -	486	685	1,171	970	616	1,000	1,070	954	410	—	—	—	—	—	—	—	—	—	6,191
5	123	Tribe; Edward George Beazley -	425	585	1,010	454	850	—	1,310	816	320	1,140	—	—	—	—	—	—	—	—	5,900
6	476	Fane; Lionel Arthur Cecil -	430	600	1,030	676	560	—	1,175	556	700	1,010	—	—	—	—	—	—	—	—	5,707
7	129	Wood; George Augustus - -	488	550	1,038	150	625	1,000	1,190	478	—	911	—	—	—	—	—	—	—	—	5,392
8	380	Walker; Henry Claughton Chesshyre	462	660	1,122	1,674	637	—	905	[244]	630	—	—	—	—	—	—	—	233	55	5,256
9	43	Cassan; Ernest - - - -	446	700	1,146	1,270	452	900	1,025	—	400	—	—	—	—	—	—	—	—	—	5,193
10	213	Young; John Robert - - -	408	605	1,013	1,090	770	600	1,082	630	[65]	—	—	—	—	—	—	—	—	—	5,185
11	181	Gordon-Cumming; Frederick Edward Charles Henville.	500	620	1,120	150	685	—	1,220	748	550	—	—	640	—	—	—	—	—	—	5,113
12	299	Rundall; Frank Montagu - -	382	700	1,082	1,570	589	—	824	[244]	280	754	—	—	—	—	—	—	—	—	5,099
13	372	Gough; Wilfred Arbuthnot - -	480	605	1,085	450	546	800	1,020	468	720	—	—	—	—	—	—	—	—	—	5,089
14	215	Bullock; George Mackworth - -	432	380	812	500	759	650	1,260	1,002	—	—	—	—	—	—	—	—	—	100	5,083
15	320	Young; William Hope - - -	405	475	880	20	653	800	1,305	812	505	—	—	—	—	—	—	—	—	—	4,975
16	71	Drummond; Robert C. - - -	321	470	791	1,196	725	800	535	—	925	—	—	—	—	—	—	—	—	—	4,972
17	446	Butler; Charles James - - -	500	465	965	1,780	457	350	—	—	—	—	—	—	—	—	—	510	870	—	4,932
18	133	Renny; George Blakiston -	378	625	1,003	1,556	740	260	825	—	490	—	—	—	—	—	—	—	—	—	4,874
19	374	Weir; Harry George - - -	470	500	970	770	850	—	1,290	547	445	—	—	—	—	—	—	—	—	—	4,872
20	307	Buckland; Philip Arnold - -	478	620	1,098	1,370	524	375	925	374	200	—	—	—	—	—	—	—	—	—	4,866
21	383	Crabbe; Eyre Macdonnel Stewart -	488	520	1,008	760	491	—	1,045	464	430	630	—	—	—	—	—	—	—	—	4,828

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RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS, &c.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																		
			Mathematics.						Classics.									Drawing.			
			Obligatory.				English.	History and Geography.			French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.			Total.
In Order of Merit.	In Examination.		Arithmetic.	Euclid and Algebra.	Total.	Optional.			Latin.	Greek.									Geometrical.	Freehand.	
		Maximum - - -	500	700	1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		
		Minimum - - -	200	—	400	—	200	200	333	266	200	200	200	200	200	200	200	200	100		1,500
68	439	Georges; Theodore William Jerome Mackeson.	500	580	1,080	1,540	422	200	—	—	—	—	—	—	—	—	380	—	141	125	3,888
69	113	Walker; Charles Sinclair - -	441	665	1,106	1,624	545	—	—	—	[92]	—	—	—	—	—	—	200	290	101	3,866
70	142	Kay; Foster Cunliffe Lister - -	396	440	836	167	654	800	486	482	435	—	—	—	—	—	—	—	—	—	3,860
71	262	Brownrigg; Robert Henry Francis Reade.	438	530	968	930	405	650	543	313	[70]	—	—	—	—	—	—	—	—	—	3,809
72	511	Thompson; Livingston - - -	371	535	906	830	368	600	—	—	—	—	—	—	—	—	550	550	—	—	3,804
73	180	Barrow; Charles Thesiger - -	353	545	898	810	288	375	—	—	—	—	—	—	—	1,020	—	410	—	—	3,801
74	467	Ravenshaw; Herbert Edward -	430	420	850	150	759	—	1,120	497	[160]	—	—	—	—	—	420	—	—	—	3,796
75	170	Spitta; Hubert Heberden - -	380	355	735	610	664	800	456	[98]	—	—	—	—	—	—	—	510	—	—	3,775
76	10	Hamilton; Jan Standish Monteith -	430	540	970	350	358	800	830	—	465	—	—	—	—	—	—	—	—	—	3,773
77	110	Jameson; John Eustace - -	500	670	1,170	1,227	461	900	—	—	[95]	—	—	—	—	—	—	—	—	—	3,758
78	153	Du Boulay; Ernest de Vismes -	484	500	984	878	316	—	—	—	265	685	—	—	—	—	—	620	—	—	3,748
79	275	Grimwood; Geoffrey Grimwood -	460	395	855	156	488	650	925	453	—	—	—	—	—	—	—	220	—	—	3,747
80	433	Bunbury; John William McClintock	446	415	861	164	602	550	864	303	—	—	—	—	—	—	—	400	—	—	3,744
81	483	Hammond; Charles George - -	500	400	900	—	465	550	925	376	495	—	—	—	—	—	—	—	—	—	3,711
82	357	English; Augustus John - -	356	580	936	636	382	—	—	—	505	622	—	—	—	—	—	620	—	—	3,701
83	220	Ingall; Frederick Montgomery Bridson.	404	545	949	790	663	650	—	—	[97]	648	—	—	—	—	—	—	—	—	3,700
84	451	Feraldi; Eugène Dieudonné - -	470	230	700	150	385	—	—	—	725	—	—	830	880	—	—	—	—	—	3,670
85	272	Fenwick; Martyn John Edward -	480	545	1,025	150	697	—	347	—	790	—	—	—	—	—	—	640	—	—	3,649
86	552	Thackwell; Joseph Edward Lucas -	405	615	1,020	1,076	438	260	—	—	305	547	—	—	—	—	—	—	—	—	3,646
87	58	Cumine; Charles Alexander George -	480	690	1,170	550	305	600	1,005	—	[118]	—	—	—	—	—	—	—	—	—	3,630

DIRECT COMMISSIONS, JULY 1870.

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RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS, &c.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																		
			Mathematics.						Classics.									Drawing.		Total.
			Obligatory.																	
In Order of Merit.	In Examination.		Arithmetic.	Euclid and Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	
		Maximum - - -	500	700	1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		
		Minimum - - -	200	—	400	—	200	200	333	266	200	200	200	200	200	200	200	200	100		1,500
131	252	Robinson; James Estcourt - -	480	625	1,105	630	307	650	—	—	290	—	—	—	—	—	—	—	121	78	3,181
132	229	Dumaresq; Arthur Henry - -	378	660	1,038	380	489	550	390	—	320	—	—	—	—	—	—	—	—	—	3,167
133	174	Cavaye; Henry Kennett - -	480	640	1,120	575	552	260	—	—	415	—	—	—	—	—	—	240	—	—	3,162
134	13	Browne; Edward Pohlman - -	376	255	631	162	430	260	1,185	489	[170]	—	—	—	—	—	—	—	—	—	3,157
135	24	Sprague; Basil Edward - -	436	625	1,061	150	535	240	870	272	[40]	—	—	—	—	—	—	—	—	—	3,128
136	254	Dent; Herbert Wilkinson - -	440	300	740	150	471	550	695	501	[140]	—	—	—	—	—	—	—	—	—	3,107
137	345	Wormald; Percy - - -	500	275	775	150	550	—	835	495	—	—	—	—	—	—	280	—	—	—	3,085
138	297	Kelly; Charles Henry - - -	390	440	830	—	534	800	860	—	[165]	—	—	—	—	—	—	—	—	—	3,024
139	188	Entwisle; Edward Lloyd - -	444	295	739	535	379	—	1,065	[136]	300	—	—	—	—	—	—	—	—	—	3,018
140	261	Courtenay; Arthur Henry - -	487	340	827	—	797	550	525	318	[135]	—	—	—	—	—	—	—	—	—	3,017
141	305	Heron-Maxwell; William Henry Stopford.	423	500	923	—	663	375	490	281	280	—	—	—	—	—	—	—	—	—	3,012
142	448	Matthew; Henry Mordaunt - -	410	265	675	110	532	260	890	—	540	—	—	—	—	—	—	—	—	—	3,007
143	534	Eden; John Henry - - -	470	385	855	30	609	350	895	267	[67]	—	—	—	—	—	—	—	—	—	3,006
144	236	Hallett; James Wyndham Hughes -	500	520	1,020	650	490	350	—	—	—	492	—	—	—	—	—	—	[47]	[19]	3,002
145	46	Makellar; Cunnynghame Graham -	487	185	672	162	519	310	845	[73]	490	—	—	—	—	—	—	—	—	—	2,998
146	456	Fox; William Edward Ker - -	480	230	710	—	870	650	767	—	[75]	—	—	—	—	—	—	—	—	—	2,997
147	384	Cook; George Leslie - - -	466	560	1,026	460	498	375	—	—	225	—	—	—	—	—	—	—	263	143	2,990
148	115	Passy; De Lacy Dayrell - -	325	515	840	375	552	240	—	—	400	—	—	—	—	—	—	570	—	—	2,977
149	460	Campbell; Colin - - -	400	465	865	—	665	650	—	—	—	539	—	—	—	—	—	—	188	64	2,971
150	293	Torrie; Laurence Jameson - -	500	630	1,130	166	439	—	742	[249]	[145]	457	—	—	—	—	—	—	—	—	2,934
151	303	Wilson; Robert Charles Dighton -	360	465	825	382	566	550	608	—	[147]	—	—	—	—	—	—	—	—	—	2,931
	421	Cracroft-Amcotts; Frederic A. -	340	330	670	350	462	375	525	274	275	—	—	—	—	—	—	—	—	—	2,931

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RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS, &c.—SUCCESSFUL CANDIDATES—*cont.*

Number.			NUMBER OF MARKS OBTAINED.																		
			Mathematics.						Classics.										Drawing.		
			Obligatory.																		
In Order of Merit.	In Examination.	Name.	Arithmetic.	Euclid and Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum - - -	500	700	1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		
		Minimum - - -	200	—	400	—	200	200	333	266	200	200	200	200	200	200	200	200	100		1,500
195	458	Quill; Berkeley Crosbie - -	480	630	1,110	650	414	225	—	—	[57]	—	—	—	—	—	—	—	133	70	2,602
196	16	Morris; William Barnes - -	476	375	851	—	482	650	615	—	—	—	—	—	—	—	—	—	—	—	2,598
197	29	Scott; William - - - -	442	475	917	866	321	375	[170]	—	—	—	—	—	—	—	—	—	43	75	2,597
198	506	Breslin; Edward W. - -	480	520	1,000	200	786	600	[255]	—	—	—	—	—	—	—	—	—	—	—	2,586
199	80	Bowers; Maunsell - - -	410	545	955	150	401	350	365	[213]	360	—	—	—	—	—	—	—	—	—	2,581
200	45	Fulcher; Edward Coope - -	244	355	599	150	387	650	—	—	300	494	—	—	—	—	—	—	—	—	2,580
	376	Cazalet; William Home - -	488	545	1,033	650	257	—	—	—	[72]	—	—	—	—	—	[110]	640	—	—	2,580
202	424	Bulley; Charles Neptune - -	480	420	900	150	415	350	352	—	405	—	—	—	—	—	—	—	—	—	2,572
203	266	Forbes; Oswald Eric Stuart - -	370	220	590	—	648	310	—	—	[5]	—	—	—	—	1,000	—	—	—	—	2,548
204	410	Macausland; Redmond Conyngham Samuel.	363	500	863	150	318	550	655	—	[55]	—	—	—	—	—	—	—	—	—	2,536
205	490	Haynes; Henry - - - -	480	415	895	150	400	350	—	—	—	—	—	—	—	—	520	—	162	58	2,535
206	61	Ellis; Henry Leslie - - -	468	265	733	210	450	600	535	[169]	[37]	—	—	—	—	—	—	—	—	—	2,528
207	203	King; John Rooper - - -	392	570	962	182	466	—	705	[115]	[170]	—	—	—	—	—	—	—	165	46	2,526
208	42	White; Frederick Power Lawrence -	487	470	957	—	472	375	—	—	[110]	713	—	—	—	—	—	—	—	—	2,517
209	224	Braithwaite; James Herbert Vidal -	382	385	767	—	314	240	498	—	—	689	—	—	—	—	—	—	—	—	2,508
210	329	Johnstone; James Mitchell -	428	520	948	—	460	225	—	—	425	447	—	—	—	—	—	—	—	—	2,505
211	350	Chapman; George Alexander - -	430	465	895	—	583	600	—	—	220	—	—	—	—	—	—	200	—	—	2,498
212	106	Lascelles; [Hon.] Charles George -	346	355	701	—	775	—	395	—	[170]	614	—	—	—	—	—	—	—	—	2,485
213	82	Frere; William Douglas - -	388	490	878	560	345	240	460	[221]	[45]	—	—	—	—	—	—	—	—	—	2,483
	377	Fasken; Edward James Nicols -	500	425	925	350	341	—	714	[95]	[60]	—	—	—	—	—	—	—	113	40	2,483
215	154	Monteith; John - - - -	380	575	955	150	208	350	360	[30]	455	—	—	—	—	—	—	—	—	—	2,478
	284	Candy; James Molesworth - -	436	555	991	150	492	240	605	—	[125]	—	—	—	—	—	—	—	—	—	2,478

DIRECT COMMISSIONS, JULY 1870.

217	445	Smith; Rodolph St. George	498	470	958	320	294	550	—	—	[60]	—	—	—	—	—	—	—	—	—	—	—	53	2,473
218	3322	Montgomery; Basil Templar Graham	453	470	923	270	592	[175]	687	—	515	—	—	—	—	—	—	—	—	—	—	—	—	2,472
219	2358	Foster; Trevor John - -	352	155	507	150	635	600	—	—	[30]	—	—	—	—	—	—	—	—	—	—	—	—	2,467
220	163	Carpenter; Edward Owen -	423	605	1,031	587	360	—	346	—	270	—	—	—	—	—	—	—	—	—	—	15	—	2,459
221	429	Caulfeild; Montgomerie Crofton -	406	405	811	120	649	600	[117]	—	[62]	—	—	—	—	—	—	—	—	—	—	—	—	2,450
222	3385	Lindsell; Charles Frederick -	435	400	835	150	402	310	713	[222]	465	—	—	—	—	—	—	—	—	—	—	—	—	2,440
223	21	Thomas; Robert Edward Neilson	423	305	728	150	344	375	370	—	—	—	—	—	—	—	—	—	—	—	—	—	[27]	2,432
224	3040	Forde, Arthur - -	423	480	960	80	408	375	—	—	—	[25]	—	—	—	—	—	—	—	—	—	—	—	2,423
225	471	Sleigh; Hugh Richard - -	500	360	860	180	480	900	—	—	—	[147]	—	—	—	—	—	—	—	—	—	—	—	2,420
226	241	Campion; Heathcote Francis George -	388	510	898	450	305	240	—	—	—	[335]	—	—	—	—	—	—	—	—	—	—	—	2,413
227	44	Tuffe; Christopher Richard -	424	495	919	206	356	—	—	—	—	[37]	—	—	—	—	—	—	—	—	—	133	—	2,407
227	3488	Purdon; Henry George -	373	315	688	580	246	650	—	—	—	[30]	—	—	—	—	—	—	—	—	—	128	—	2,407
229	470	Beck; Charles Edward -	470	480	950	150	325	310	562	—	—	[80]	—	—	—	—	—	—	—	—	—	155	83	2,397
230	545	Upton; Henry Edward Montague Dorrington Clotworthy -	460	550	1,010	200	274	—	—	—	—	[95]	—	909	—	—	—	—	—	—	[180]	—	—	2,333
231	556	Curran; Arthur Edward Richards -	480	560	1,040	350	392	600	—	—	—	—	—	—	—	—	—	—	—	—	[55]	[145]	—	2,382
232	519	Festing; Michael Morton Metcalfe	450	580	1,030	430	313	—	383	—	—	—	—	—	—	—	—	—	—	—	169	50	—	2,375
233	512	Peacocke; Warren Thomas -	440	595	1,035	100	447	—	535	—	[25]	—	—	—	—	—	—	—	—	—	175	—	—	2,372
234	234	Henchy; Hugh O'Connor -	308	145	453	—	332	200	804	[74]	580	—	—	—	—	—	—	—	—	—	—	—	—	2,369
235	362	Tanner; Lombard John Newman	206	350	646	196	297	225	—	—	305	—	606	—	—	—	—	—	—	—	—	—	—	2,365
236	328	Vigor; Frederick George -	332	465	797	—	207	310	685	363	37	—	—	—	—	—	—	—	—	—	—	—	—	2,362
237	571	Maude; Aubrey Maurice -	486	570	1,056	250	427	500	—	—	37	—	—	—	—	—	—	—	—	—	—	116	—	2,349
238	393	Mainwaring; Henry Germain -	385	390	775	150	312	240	—	—	90	—	393	—	—	—	—	—	—	—	—	—	—	2,345
238	502	Bocher; Frederick William -	358	645	1,003	350	251	200	340	—	—	—	—	—	—	—	—	—	—	—	—	151	50	2,345
240	247	Moore; George Greville -	450	360	810	—	253	—	365	[174]	220	—	694	—	—	—	—	—	—	—	—	—	—	2,342
240	554	Patchett; William Gordon -	402	390	882	179	260	260	344	[33]	[87]	—	—	—	—	—	—	—	—	—	—	—	—	2,339
242	343	Archdall; Mervyn Henry -	470	645	1,115	206	301	350	—	—	[5]	—	—	—	—	—	—	—	—	—	—	107	—	2,339
243	144	Bruce; Archibald Adair -	476	370	846	150	572	350	420	—	[85]	—	—	—	—	—	—	—	—	—	—	—	—	2,338
244	136	Marrett; Henry Richard -	458	525	983	398	455	240	—	—	[47]	—	—	—	—	—	—	—	—	—	—	—	—	2,326
245	260	Gerard; William Cansfield -	452	525	977	150	590	600	—	—	[140]	—	—	—	—	—	—	—	—	—	—	—	—	2,317
246	121	Saunders; Robert Erasmus -	480	275	755	—	308	—	416	—	405	—	428	—	—	—	—	—	—	—	—	—	—	2,312
247	346	Liardet; Walter Stormont Davies	462	440	902	550	459	375	[271]	—	[13]	—	—	—	—	—	—	—	—	—	—	—	—	2,295
248	423	Brewster-French; Robert Abraham	464	410	874	180	312	—	475	[135]	[170]	—	—	—	—	—	—	—	—	—	—	—	—	2,284
249	122	Beadnell; Alfred George Streatfeild -	462	360	822	184	288	—	—	—	515	—	—	—	—	—	—	—	—	[50]	410	—	—	2,279
250	88	Wickham; George Lamplugh -	370	280	650	—	474	600	[100]	550	[82]	—	—	—	—	—	—	—	—	—	—	—	—	2,274
251	270	Sharpe; James Williams -	440	305	745	150	575	200	537	—	[177]	—	—	—	—	—	—	—	—	—	—	—	—	2,207
252	173	O'Hara; John - -	476	345	821	20	638	225	—	—	200	—	—	—	—	—	—	—	—	360	—	—	—	2,202
253	489	Gwynne; Alban - -	500	200	700	150	320	600	483	[133]	[65]	—	—	—	—	—	—	—	—	—	—	—	—	2,253
254	89	Somerset; Henry Plantagenet -	382	380	762	180	358	—	—	—	345	—	614	—	—	—	—	—	—	—	[170]	—	—	2,230
255	221	Grubb; Charles Alfred - -	480	515	995	350	200	375	—	—	[135]	—	690	—	—	—	—	—	—	—	—	—	—	2,235
256	231	Monro; George Alexander Ross	244	425	669	—	724	375	—	—	[110]	—	—	—	—	—	—	—	—	—	450	—	—	2,218
257	469	Stockley; Vesey Mangles -	500	270	770	—	400	650	395	—	[45]	—	—	—	—	—	—	—	—	—	—	—	—	2,215
258	318	Blundell; William Joseph -	408	385	793	—	409	650	—	—	270	—	—	—	—	—	—	—	—	—	—	—	[20]	2,212
259	67	Wardo; Henry Murray Ashley	423	348	790	—	313	260	—	—	[145]	—	—	—	—	—	—	—	—	—	—	—	—	2,211

* * The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS, &c.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																		
			Mathematics.						Classics.										Drawing.		
			Obligatory.																		
In Order of Merit.	In Examination.		Arithmetic.	Euclid and Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum - - -	500	700	1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		
		Minimum - - -	200	—	400	—	200	200	333	266	200	200	200	200	200	200	200	200	100		1,500
260	339	Short; Hugh Martin - - -	430	230	660	150	513	650	—	—	[92]	234	—	—	—	—	—	—	—	—	2,207
261	553	Elwon; Thomas Henry Vaughan -	486	305	791	182	492	—	735	[210]	[125]	—	—	—	—	—	—	—	—	—	2,200
262	191	Knox; Francis Robert Bonham -	303	325	628	558	333	240	—	—	—	—	—	—	—	—	440	[190]	—	—	2,199
263	125	Rimington-Wilson; Reginald Henry -	410	275	685	100	365	240	800	[234]	[120]	—	—	—	—	—	—	—	—	—	2,190
264	311	Mott; William Henry - - -	466	515	981	150	538	—	517	—	[115]	—	—	—	—	—	—	—	—	[80]	2,186
265	475	Powis; Henry Herbert - - -	470	405	875	180	501	260	354	—	[47]	—	—	—	—	—	—	—	—	—	2,170
266	388	Newland; Arthur Connop - - -	470	490	960	80	241	550	338	—	[120]	—	—	—	—	—	—	—	—	—	2,169
267	7	Howard; George Augustus Hotham -	450	350	800	—	268	—	—	—	—	—	—	—	—	—	630	300	—	165	2,163
268	183	Boyce; Arthur Courtenay Woollcombe	440	525	965	170	394	—	395	—	[60]	—	—	—	—	—	—	230	—	—	2,154
269	149	Dillon; Arthur Stewart Corry -	486	370	856	—	428	375	—	—	210	—	—	—	—	—	—	—	140	133	2,142
270	349	Sandeman; Robert Preston - -	310	400	710	350	367	240	—	—	[10]	—	—	—	—	—	—	470	—	—	2,137
271	40	Charlton; Ernest Lambert Swineburne	302	385	687	—	649	800	—	—	[115]	—	—	—	—	—	—	—	—	[43]	2,136
272	219	Adey; Goodson - - - -	428	550	978	170	441	375	—	—	[132]	—	—	—	—	—	—	—	140	27	2,131
	463	Pryce; Pryce Meyrick - -	477	400	877	—	379	225	650	—	—	—	—	—	—	—	—	—	[10]	[38]	2,131
274	83	Nicholetts; Edwin Arthur - -	222	420	642	176	265	225	—	—	—	—	—	—	—	815	—	—	—	—	2,123
	540	Yeatherd; Ernest Walter - -	390	425	815	700	233	225	—	—	[185]	—	—	—	—	—	—	—	83	67	2,123
276	294	Hughes; Frank - - -	410	640	1,050	590	275	—	—	—	[30]	—	—	—	—	—	—	[190]	188	15	2,118
277	399	Eyelegh; Frederick John - -	458	510	968	155	471	—	—	—	[155]	381	—	—	—	—	—	—	106	33	2,114
278	464	Wandesforde; Charles Harward Butler	424	370	794	—	370	550	396	[183]	[37]	—	—	—	—	—	—	—	—	—	2,110
279	422	Edwardes; Charles Gustavus Whittaker.	340	480	820	—	399	550	340	—	[30]	—	—	—	—	—	—	—	—	—	2,109
280	259	Westenra; [Honble.] Derrick Warner William.	428	245	673	30	299	—	—	—	405	699	—	—	—	—	—	—	[33]	[37]	2,106
	462	Munro; George Montgomery - -	480	520	1,000	150	356	600	[128]	—	[18]	—	—	—	—	—	—	—	—	—	2,106

282	105	Maitland; Alexander Fuller - -	460	300	700	60	337	310	—	—	[90]	697	—	—	—	—	—	—	—	—	—	2,104
283	508	Foulger; Montagu Scott Heath -	480	440	920	150	340	—	—	—	[57]	—	—	—	—	—	—	270	420	—	—	2,100
284	199	Montagu; Cecil Edgar - -	392	370	762	150	386	350	445	—	[13]	—	—	—	—	—	—	—	—	—	—	2,093
285	414	Marsh; George Warburton - -	402	530	932	350	255	260	—	—	—	—	—	—	—	—	—	280	—	—	—	2,077
286	120	Blair; Frederick Gordon - -	370	400	770	150	280	350	[103]	—	—	—	—	—	—	—	—	—	510	—	—	2,060
287	473	Pole; George Henry Thomas -	271	200	471	—	672	290	620	—	[50]	—	—	—	—	—	—	—	—	—	—	2,053
288	217	Coleman; John Rossiter - -	500	480	980	150	242	225	445	—	[100]	—	—	—	—	—	—	—	—	—	—	2,042
289	22	Morgan; Charles Augustus -	384	335	719	193	333	350	445	—	[17]	—	—	—	—	—	—	—	—	—	—	2,040
290	70	Heyland; Alfred Rowley -	345	540	885	100	282	310	455	—	[25]	—	—	—	—	—	—	—	—	—	—	2,032
291	358	Gurney; Lewis Edmund - -	398	250	648	—	522	—	360	—	495	—	—	—	—	—	—	—	—	—	[52]	2,025
292	1	Lascelles; David Arthur George -	421	300	721	230	442	[109]	—	—	390	228	—	—	—	—	—	—	—	—	—	2,011
293	438	Synge; Francis Robert - -	408	460	868	100	364	225	338	—	—	—	—	—	—	—	—	—	—	56	58	2,009
294	481	Percy; Alfred - - - -	426	500	926	386	275	225	—	—	—	—	—	—	—	—	—	—	—	76	117	2,005
295	550	Hassard; Henry Somerset - -	483	450	933	600	230	240	—	—	[145]	—	—	—	—	—	—	—	—	[50]	[48]	2,003
296	316	Hopegood; William Vere - -	380	435	815	—	348	310	526	—	[67]	—	—	—	—	—	—	—	—	—	—	1,999
297	295	Carlyon; Thomas Tristram Spry -	428	320	748	123	214	—	—	—	[65]	764	—	—	—	—	—	—	—	95	50	1,991
298	312	Hicks; Henry Tempest - -	391	460	851	—	481	350	[284]	—	—	—	—	—	—	—	—	—	—	168	135	1,985
299	30	Prittie; Edward - - -	470	535	1,005	150	261	350	—	—	[75]	—	—	—	—	—	—	—	—	113	103	1,982
	484	Russell; Frederick James L. - -	457	300	757	150	491	240	344	—	[125]	—	—	—	—	—	—	—	—	—	—	1,982
301	430	Gordon; [Lord] Douglas William Cope	500	510	1,010	180	438	350	—	—	[105]	—	—	—	—	—	—	—	—	—	—	1,978
302	177	Stokes; William Edward - -	476	515	991	180	209	—	—	—	[62]	—	—	—	—	—	—	450	90	53	—	1,973
303	176	Dalison; Maximilian Dudley Diggs -	440	300	740	195	341	350	345	—	[47]	—	—	—	—	—	—	—	—	—	—	1,971
304	340	Yaldwin; Percy J. M. - - -	220	370	590	—	516	225	638	—	[105]	—	—	—	—	—	—	—	—	—	—	1,969
305	441	Hutton; Thomas - - -	303	515	818	150	484	—	—	—	[47]	—	—	—	—	—	—	280	106	128	—	1,966
306	242	Hawley; William - - -	392	480	872	—	312	240	535	—	[80]	—	—	—	—	—	—	—	—	—	—	1,959
307	356	Purvis; Charles Hotham - -	440	550	990	350	265	350	—	—	[85]	—	—	—	—	—	—	[120]	—	—	—	1,955
308	248	Trower; Sydney Arthur - -	306	530	836	210	323	225	360	—	[25]	—	—	—	—	—	—	—	—	—	—	1,954
309	391	Rhodes; Francis William - -	450	90	540	—	579	450	380	[88]	[5]	—	—	—	—	—	—	—	—	—	—	1,949
310	130	Summers; George Richard - -	418	335	753	150	365	375	—	—	305	—	—	—	—	—	—	—	—	—	—	1,948
311	306	Bond; William Henry - - -	315	205	520	—	544	—	615	—	265	—	—	—	—	—	—	—	—	—	[46]	1,944
312	11	Hoey; Henry Baron - - -	420	235	655	—	434	260	385	—	205	—	—	—	—	—	—	—	—	—	—	1,939
313	353	Read; Hastings - - - -	480	490	970	150	467	350	—	—	[62]	—	—	—	—	—	—	[130]	—	—	—	1,937
314	135	Alexander; Robert Gustavus -	403	385	788	368	436	[125]	338	—	[120]	—	—	—	—	—	—	—	—	—	—	1,930
315	326	Davenport; Samuel Yates Holt -	430	260	690	—	366	350	514	[47]	[152]	—	—	—	—	—	—	—	—	—	—	1,920
316	359	Biggs; William Henry - - -	440	320	760	—	409	—	440	—	—	—	—	—	—	—	—	310	—	—	—	1,919
317	118	Mellor; Llewellyn Salusbury -	420	490	910	450	325	225	[155]	—	[77]	—	—	—	—	—	—	—	—	—	—	1,910
318	321	Bayly; John Cave - - -	287	380	667	80	305	260	337	—	250	—	—	—	—	—	—	—	—	—	—	1,899
319	575	Hill; Augustus West - - -	460	310	770	400	291	—	—	—	[37]	—	—	—	—	—	—	200	226	—	—	1,887
320	76	Macdonald; William Montagu Farquason Colquhoun.	380	200	580	—	209	375	480	[96]	242	—	—	—	—	—	—	—	—	—	—	1,886
321	505	Severne; Herbert Sowdon - -	500	485	985	150	271	—	342	—	[65]	—	—	—	—	—	—	—	—	109	25	1882
322	522	Cooke; James George - - -	480	500	980	150	375	375	—	—	[23]	—	—	—	—	—	—	—	—	[73]	[13]	1880
323	208	Riversdale; William Alcock Stawell -	330	385	715	190	414	350	—	—	[13]	—	—	—	—	—	—	210	—	—	—	1879
324	292	Dennys; Charles John - - -	353	315	668	100	642	225	—	—	—	—	—	—	—	—	—	[170]	50	176		1861

*** The marks included in brackets are below the minimum, and are not counted in the total.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS, &c.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																		
			Mathematics.						Classics.									Drawing.			
			Obligatory.																		
In Order of Merit.	In Examination.		Arithmetic.	Euclid and Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum - - -	500	700	1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		
		Minimum - - -	200	—	400	—	200	200	333	266	200	200	200	200	200	200	200	200	100		1,500
325	288	Sapte; Herbert Langton - -	485	625	1,110	163	237	350	—	—	[25]	—	—	—	—	—	—	—	—	—	1860
326	143	Dalton; Reginald Tuite - -	330	260	590	128	203	200	735	—	—	—	—	—	—	—	—	—	—	—	1856
327	332	Burn; H. Pelham - - -	330	340	670	150	301	225	505	[172]	[10]	—	—	—	—	—	—	—	—	—	1851
328	94	Crawford; Robert Erskine Wade -	351	330	681	162	351	[50]	655	—	[75]	—	—	—	—	—	—	—	—	—	1849
329	201	MacLaren; William Henry - -	388	370	758	—	224	375	—	—	—	—	—	—	—	—	—	380	61	44	1842
330	405	Gamneson; John Deakin - -	450	265	715	150	423	550	—	—	—	—	—	—	—	—	—	—	[72]	[21]	1838
331	269	Purchas; John Robert Philip -	480	485	965	150	320	—	[238]	—	290	—	—	—	—	—	—	—	21	87	1833
	457	Marsham; Frederic Savill - -	442	305	747	—	531	[175]	555	[86]	[37]	—	—	—	—	—	—	—	—	—	1833
333	317	Yerbury; Walter Chellion - -	348	385	733	350	374	375	—	—	—	—	—	—	—	—	—	[130]	—	[30]	1832
334	222	Armitage; Harry Arnold - -	466	475	941	—	240	—	640	—	[47]	—	—	—	—	—	—	—	—	[65]	1821
335	141	Browne; George Edward Beale -	480	325	805	150	250	[150]	597	—	[37]	—	—	—	—	—	—	—	—	—	1802
336	245	De Hoghton; Philip - - -	490	400	890	150	415	225	—	—	[13]	—	—	—	—	—	—	—	66	55	1801
337	533	Eyton; John Hope Wynne - -	430	275	705	—	304	375	404	—	—	—	—	—	—	—	—	—	—	[90]	1788
338	510	Moray; William Augustus Home Drummond.	420	150	570	150	242	225	596	[73]	[75]	—	—	—	—	—	—	—	—	—	1783
339	25	Williams; George Stanley - -	434	305	739	493	306	240	—	—	[35]	—	—	—	—	—	—	[130]	—	—	1778
340	564	Inglis; John Frederic - -	365	210	575	—	316	350	534	[236]	—	—	—	—	—	—	—	—	—	[30]	1775
341	179	Tottenham; Arthur Eli Heathcote -	445	590	1,035	186	291	—	—	—	[75]	—	—	—	—	—	[160]	260	—	—	1772
342	520	Cadell; Hew Francis - -	396	450	846	—	547	375	—	—	[115]	—	—	—	—	—	—	—	—	[30]	1768
	555	Spicer; Julian John Newton - -	432	420	852	—	270	310	336	[202]	[52]	—	—	—	—	—	—	—	—	—	1768
344	55	Hunt; James Maitland - -	458	450	908	—	223	—	345	284	[20]	—	—	—	—	—	—	[30]	—	—	1760
345	387	Battye; Montagu William - -	416	290	706	—	392	310	350	—	[65]	—	—	—	—	—	—	—	—	—	1758
346	206	Hone; Jeffrey Browning - -	462	565	1027	90	240	240	[185]	[222]	—	—	—	—	—	—	—	—	54	103	1754

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RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS, &c.—SUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																		
			Mathematics.						Classics.									Drawing.		
			Obligatory.																	
In Order of Merit.	In Examination.		Arithmetic.	Euclid and Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum - - -	500	700	1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		
		Minimum - - -	200	—	400	—	200	200	333	266	200	200	200	200	200	200	200	200	100		1,500
391	151	Rawlins; Henry de Courcy - -	364	420	784	150	242	[125]	—	—	[25]	—	—	—	—	—	—	—	265	59	1,500
	530	Day; Montague Campbell - -	480	300	780	150	230	—	—	—	[45]	—	—	—	—	—	—	340	—	—	1,500
		QUEEN'S CADETS.																			
1	367	Dowse; Edward Cecil - - -	405	405	810	150	453	650	—	—	[25]	—	—	—	—	—	—	—	120	53	2,236
2	138	Anderson; Joseph Edward - -	500	675	1,175	162	373	225	—	—	[120]	—	—	—	—	—	—	—	—	—	1,935
3	309	Dinwiddie; Gilbert - -	424	385	809	—	518	260	[300]	—	—	—	304	—	—	—	—	—	—	—	1,891
4	232	Möller; Bernhard Drysdale - -	480	380	860	—	356	260	—	—	[75]	329	—	—	—	—	—	—	—	—	1,805
		INDIAN CADETS.																			
1	543	Hare; Henry - - - -	430	615	1,045	680	883	350	1,085	751	230	—	—	—	—	—	—	—	—	—	5,024
2	518	*Barrow; Edmund G. - - -	500	620	1,120	818	845	800	—	—	540	—	—	—	—	—	—	—	126	50	4,299
3	463	Hutchinson; Edward Brandreth -	330	485	815	350	655	—	784	282	[25]	—	—	—	—	—	—	—	217	50	3,153
4	5	Gray; Henry Charles Barton - -	460	540	1,000	350	479	600	—	—	—	—	—	—	—	—	—	—	180	77	3,066
5	267	Des Vœux; Charles Hamilton -	480	410	890	350	536	—	445	—	[180]	—	—	—	—	—	—	380	620	—	2,891
6	281	Bowhill; James Henry - -	444	380	824	775	472	225	—	—	—	—	—	—	—	—	—	230	155	135	2,816
7	289	Hayne; Arthur Ghoram Howard -	450	590	1,040	150	360	225	724	—	[70]	—	—	—	—	—	—	—	—	—	2,499
8	539	Fulton; Robert - - -	490	325	815	150	352	240	—	—	—	—	—	—	—	—	—	410	50	90	2,107
9	547	Backhouse; Julius Batt - -	416	485	901	40	275	310	[64]	—	[140]	—	—	—	—	—	—	—	—	—	1,526

Unsuccessful Candidates.

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RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS, &c.—UNSUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																		
			Mathematics.						Classics.										Drawing.		
			Obligatory.																		
In Order of Merit.	In Examination.		Arithmetic.	Euclid and Algebra.	Total.	Optional.	English.	History and Geography.	Latin.	Greek.	French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	Total.
		Maximum	500	700	1,200	2,400	1,200	1,200	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		
		Minimum	200	—	400	—	200	200	333	266	200	200	200	200	200	200	200	200	100		1,500
434	573		220	375	595	—	235	310	—	—	[5]	—	—	—	—	—	—	200	—	—	1,340
435	268		478	435	913	150	246	[0]	—	—	[90]	—	—	—	—	—	[100]	—	—	—	1,309
436	111		380	270	650	—	222	[175]	435	—	[13]	—	—	—	—	—	—	—	—	—	1,307
437	69		323	435	758	150	265	—	—	—	[115]	—	—	—	—	—	—	—	80	53	1,306
438	72		288	240	528	—	215	240	—	—	320	—	—	—	—	—	—	—	[31]	—	1,303
439	4		340	335	675	30	258	225	[180]	—	—	—	—	—	—	—	—	—	60	40	1,288
440	51		277	340	617	—	219	—	—	—	[25]	—	—	—	—	—	230	210	—	—	1,276
441	521		382	230	612	150	[65]	—	—	—	[5]	—	—	—	—	—	—	330	177	—	1,269
442	107		457	215	672	—	278	310	[128]	—	[28]	—	—	—	—	—	—	—	—	—	1,260
443	541		253	90	[343]	—	401	350	506	—	[13]	—	—	—	—	—	—	—	—	—	1,257
444	452		468	560	1,028	—	224	—	[154]	—	[60]	—	—	—	—	—	—	—	—	[37]	1,252
445	411		485	405	890	100	[185]	260	[133]	—	[5]	—	—	—	—	—	—	—	—	—	1,250
446	193		435	510	945	170	[63]	[175]	[40]	—	—	—	—	—	—	—	—	—	77	50	1,242
447	417		476	430	906	—	[148]	[150]	334	[74]	[40]	—	—	—	—	—	—	—	—	—	1,240
448	210		320	385	705	300	[113]	225	—	—	—	—	—	—	—	—	—	[60]	—	—	1,230
449	528		431	410	841	150	234	—	[135]	—	[85]	—	—	—	—	—	—	—	—	[40]	1,225
450	468		326	260	586	150	[28]	200	—	—	[25]	—	—	—	—	—	—	280	—	—	1,216
451	455		430	200	630	—	210	375	—	—	[37]	—	—	—	—	—	—	[90]	—	—	1,215
452	228		468	230	698	—	282	225	[300]	—	[13]	—	—	—	—	—	—	—	—	—	1,205
453	559		326	215	541	—	266	[100]	394	—	[25]	—	—	—	—	—	—	—	—	—	1,201
454	160		345	110	455	—	250	—	—	—	[10]	486	—	—	—	—	—	—	—	[52]	1,191
455	9		300	90	[390]	—	297	550	340	—	[175]	—	—	—	—	—	—	—	—	—	1,187
456	211		323	40	[363]	—	221	350	595	—	—	—	—	—	—	—	—	—	—	—	1,166

DIRECT COMMISSIONS, JULY 1870.

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DIRECT COMMISSIONS, JULY 1870.

RETURN showing the NUMBER OF MARKS gained in each subject by the CANDIDATES FOR DIRECT COMMISSIONS, &c.—UNSUCCESSFUL CANDIDATES—*cont.*

Number.		Name.	NUMBER OF MARKS OBTAINED.																				
In Order of Merit.	I. Examination.		Mathematics.				Classics.														Drawing.		Total.
			Arithmetic.	Obligatory. Euclid and Algebra.	Obligatory. Total.	Optional.	Latin.	Greek.	History and Geography.	English.	French.	German.	Spanish.	Italian.	Modern Greek.	Hindustani.	Natural Sciences.	Experimental Sciences.	Geometrical.	Freehand.	
		Maximum	500	700	1,200	2,400	2,000	1,600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600		1,500
		Minimum	200	—	400	—	333	266	200	200	200	200	200	200	200	200	200	200	100		
500	531		[188]	200	468		[150]		[150]	209	[5]							[0]			677
501	127		370	80	450		225		225	[94]	—							—			675
502	382		290	95	[385]		100	[0]	100	209	[25]							—			648
503	103		226	180	406	150	[80]	—	225	[187]	25	439						—			631
504	239		250	220	470		—		[175]	141	[5]	—						—	[35]	[13]	620
505	385		460	205	665				[0]	157	25							—	39	84	605
506	538		305	155	460		[235]		—	192	25							—			583
507	443		[170]	55	[225]		—		[150]	200	[13]	369						—			569
508	244		242	205	447		[165]		100	[198]	—	—						—	35	83	565
509	413		230	95	[325]		—		225	394								—			559
510	101		245	130	375	[150]	335	[20]	—	206	[25]							—	—	[48]	541
511	499		[168]	215	383	—	—	—	[150]	260	25	245						—			505
512	395		202	150	[352]	[100]	[170]		125	400	[46]	—						—			490
513	505		366	70	436	—	238		[100]	[139]	[0]							—			436
514	371		370	60	430		—		100	117	—							—			430
515	216		[170]	50	[220]				100	388	[25]	[98]						—			388
516	324		[110]	100	210				150	366	—	—					[30]	—	[0]	[8]	366
517	65		257	130	387		[244]		175	[192]	[5]							—	—	—	350
518	459		[132]	110	242		[35]		240	50	350							—			340
519	157		[156]	265	421		—		225	93	[5]							—	[0]	[10]	225
520	190		[140]	80	220				[0]	201	[13]							—	[50]	[28]	201
521	195		[146]	130	[276]				125	[137]	[65]							—		[50]	128
522	226		[150]	120	[270]		[88]		—	[72]	[5]							[70]	42	86	101
											—								64	87	

DIRECT COMMISSIONS, JULY 1870.

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Appendix V.

CIVIL SERVICE OF INDIA.

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CIVIL SERVICE OF INDIA.

1.—CORRESPONDENCE.

Revised scheme of examination for India Forest Service.

The Under Secretary of State for India to the Secretary, Civil Service Commission.

SIR, India Office, 21st October 1869.

I AM directed by His Grace the Secretary of State for India to acquaint you that, having received a reply to his despatch which transmitted your letter of the 7th of July last to His Excellency the Gover nor-General of India in Council, he has determined to request you to hold an examination in order to select eleven (11) young men, if so many can be found fully competent to commence the requisite training in France and Germany in March 1870. Unless they are fully competent the Government of India will prefer that a smaller number should be selected.

It is proposed to pursue the same course as was taken last year. The advertisements will be issued to persons to send in their testimonials of qualifications by the 25th of November, and to appear personally before Dr. Cleghorn and the Medical Board on the 6th, 7th, and 8th of December, and the Duke of Argyll hopes that the Commission will be able to hold their examination on the 9th and following days.

Some slight alterations will be made in the Paper of Particulars, excluding married persons, removing plan drawing from the compulsory to the optional subjects, laying greater stress upon land measuring, surveying, and geology, and mineralogy, than on the other optional subjects, &c. These and other matters of detail will be arranged by the Revenue Department of this office, and Dr. Cleghorn with the officers of your department.

I am in conclusion to thank the Commission for the readiness which they have expressed to undertake this duty.

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State for India.

SIR, 26th October 1869.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 21st instant, relative to the proposed examination for eleven appointments in the India Forest Service.

And in reply I am to acquaint you for the information of the Secre tary of State for India in Council that the Commissioners will readily give their assistance in the manner proposed and that they will be prepared to commence the examination on the day named in your letter, viz., the 9th December.

I have, &c.

The Under Secretary of State for India, to the Secretary, Civil Service Commission.

Report on training of candidates for India Forest Service.

SIR, India Office, 30th November 1869.

WITH reference to the letter from this department of the 21st ultimo, I am directed to transmit to you a copy of a letter from the Directeur Général des Forêts at Paris, together with the report from Monsieur Clément de Grandprey inclosed in it, and also an extract from a letter from Monsieur Nanquette, the Directeur Général de l'École Impériale at Nancy, on the conduct and progress of the four young men selected for Forest appointments after the examination conducted by the Civil Service Commission in February last.

I am to direct your attention to the great importance attached by these authorities to a sufficient knowledge of colloquial French in candidates for future appointments.

It will also, His Grace thinks, be interesting to the Civil Service Commission to see the opinion expressed by Monsieur Clément de Grandprey on the value of oral examinations.

I am, &c.

EXTRACT of a LETTER from MONSIEUR NANQUETTE, Directeur Général de l'École Impériale à Nancy, le 2 Novembre 1869.

Des quatres jeunes anglais qui viennent de terminer leurs études préparatoires à Haguenau, trois sont arrivés et installés à Nancy depuis deux jours; ce sont MM. Whittall, Peet et Gamble. Le quatrième est resté à Haguenau et ne se rendra ici que dans quelques jours; lorsqu'il sera parfaitement guéri d'une maladie grave (fièvre typhoide) dont il a été atteint dans ces derniers temps. Ceux que j'ai reçus m'ont paru des jeunes gens bien élevés et disposés à faire de bonnes études.

Au sujét de ceux qui doivent venir en France au mois de mars, j'oserai vous prier, Monsieur, dans l'intérêt de leurs études, de tenir la main à ce qu'ils soient aussi bien familiarisés que possible avec la langue française. Dans ce but, il serait bon de les envoyer dans une autre residence que Haguenau où l'on parle peu le français.

Si cette proposition vous agrée, je vous serai obligé de me prevenir directement, quelque temps avant que ces jeunes gens ne quittent l'Angleterre, afin que je puisse attirer sur ce point, et en temps utile, l'attention de M. le Directeur Général des Forêts.

Je vous prie d'agréer, Monsieur, l'expression des sentiments de haute consideration de

Votre très obéissant serviteur,
Le Directeur de l'École Impériale Forestière,
(Signé) NANQUETTE.

No. 1.

Paris, le 16 Novembre 1869.

MONSIEUR LE SOUS SECRÉTAIRE D'ÉTAT,

CONFORMÉMENT aux dispositions de l'Article 4 du règlement du 6 Janvier 1867, j'ai l'honneur de vous addresser un rapport sur les études et la conduite des élèves forestiers Gamble, Whittall, Peet, et Wroughton, placés sous la direction de M. Clément de Grandprey, Inspecteur de Forêts à Haguenau.

Ce Chef de Service rendant un compte très favorable des efforts et de la conduite des quatre élèves dont l'instruction était confiée à ses soins, vous apprécierez sans doute, M. le Sous Secrétaire d'État, qu'il y a lieu d'allouer à chacun de ces ses élèves, la subvention fixée par l'Article 9 du réglement précité et portée à 100*l.* par votre Dépêche du 23 Novembre 1868.

Veuillez agréer, M. le Sous Secrétaire d'État, l'assurance de ma haute consideration.

Le Conseiller d'État.
Directeur Général des Forêts,
(Signé) H. VARÉ.

M. le Sous Secrétaire d'État pour l'Inde.

Report on training of candidates for India Forest Service.

No. 2.

RAPPORT sur les Études et la Conduite des Élèves Forestiers Anglais destinés au Service de l'Inde pendant leur séjour à Haguenau, sous la Direction de M. Clément de Grandprey, Inspecteur des Forêts.

Par décision du 20 Février 1869, M. le Directeur Général plaça à Haguenau quatre élèves anglais destinés au service de l'Inde. Ce furent MM. James Sykes Gamble, Richard Henry Cecil Whittall, Arthur William Peet, et Robert Charles Wroughton. Ils arrivèrent à Haguenau dans les premiers jours du mois de Mars.

Aucun d'eux n'était en état de suivre une conversation en français; néanmoins ils écrivaient et redigeaient d'une manière suffisamment correcte; tous les quatre avaient des connaissances assez étendues en mathématiques, surtout M. Gamble, mais ils n'avaient que des notions très incompletes en chimie et en physique.

Pour mettre ces messieurs à même de suivre avec fruit les cours de l'École Forestière, j'avais d'abord à faire en sorte qu'ils se familiarisassent avec la langue française et à leur faire étudier la chimie et la physique.

Je me fis accompagner par eux dans toutes mes tournées; je leur expliquai le but de toutes les opérations forestières auxquelles je leur fis prendre, dans le derniers temps, une part active; je me fis répéter ce que je leur avais expliqué, et leur fis rediger quelques mémoires sur les principales questions. Je les fis venir fréquemment dans mon cabinet, où je leur développai les principales théories de sylviculture. En outre je leur donnai un maître de français principalement pour le parler, et je les mis en relation avec des personnes qui les firent causer volontiers.

Ils firent de rapides progrès, principalement M. Whittall, et dès le mois de Juin je pus leur faire prendre de leçons de physique et de chimie.

Dans l'intervalle de ces leçons, ils firent plusieurs arpentages, dessinèrent les plans, calculèrent les surfaces, redigèrent des procès-verbaux d'arpentage, de balivage, d'estimation, et de récolement visitèrent les divers travaux forestiers de repeuplement, de pépinières, &c.

Dans la derniere quinzaine d'Octobre, je les interrogeai sur les diverses connaissances forestières que je leur avais enseignées, et je pus constater que tous le quatre avaient profité de mes instructions; ils savaient ce que je leur avaient ensigné mais ils éprouvent pour dire ce qu'ils savent une difficulté que j'attribue, pour une faible part, à ce qu'ils ont à s'exprimer dans une langue étrangère, et pour la principale, à ce qu'ils n'ont jamais été exercés des examens oraux. C'est regrettable, car s'ils ne surmontent pas cette difficulté ils ne pourront, dans une école assex nombreuse, être jugés comme ils le méritent et être classés suivant leur véritable valeur.

J'ai aussi voulu qu'ils subissent un examen sur la partie de chimie et de physique qui leur avait été enseignée. Ils ont également beaucoup profité, et ont des notions qui, quoiqu'incompletes, me semblent suffisantes pour les mettre à même de se rendre compte des principaux phénomènes naturels qui se produiront sous leurs yeux.

En somme, tous les quatre me paraissent en état de suivre avec fruit les cours de l'École Forestière.

Sous le rapport de la conduite, de la tenue, et de la docilité, je n'ai que des éloges à leur addresser. Par leurs manières et leur bonne éducation, il se sont conciliés les sympathies générales.

Tous les quatre on mérité la subvention mentionée à l'Art. 9 du Réglement de 6 Janvier 1867.

MM. Gamble, Whittall, et Peet quittérent Haguenau pour se rendre à Nancy le 30 Octobre; M. Wroughton, qui avait été gravement malade, ne pût partir que le 4 Novembre, d'après l'avis de son médecin.

L'Inspecteur des Forêts,
CLÉMENT DE GRANDPREY.

Haguenau, le 8 Novembre 1869.

Transfer of selected candidates from Bombay to other Presidencies.

The Under Secretary of State for India, to the Secretary, Civil Service Commission.

SIR, India Office, 4th January 1870.

WITH reference to the decision which it will be necessary to arrive at regarding the number of civilians to be selected for the service in India at the ensuing open competitive examination, I am directed by the Secretary of State for India in council to forward to you, for the consideration of the Civil Service Commissioners, a copy of a despatch received from the Government of Bombay requesting that only six

civilians may be appointed to the Bombay Presidency in 1870, and six in 1871.

Transfer of selected candidates from Bombay to other Presidencies.

The Duke of Argyle will be obliged to the Commissioners to inform him whether the request of the Bombay Government can be complied with ; and, if not, what course the Commissioners would recommend in order to meet, as far as possible, the wishes of that Government.

The Commissioners will observe that the despatch speaks of "19" candidates having been selected for Bombay at the last competitive examination, while only 16 were then allotted to the Presidency, thus making the total number desired to be disposed of elsewhere 19.

It may assist the Commissioners in their consideration of the question to know that probably not more than 30 candidates will have to be selected this year for the other Presidencies or Divisions, with a view to appointment in 1872.

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State for India.

Sir, Civil Service Commission, 7th January 1870.

I am directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 4th instant, with enclosure relative to the number of civilians to be appointed to the Bombay Presidency.

In reply I am to request that you will submit to the Secretary of State for India in Council that as the 15 candidates selected for Bombay in 1868 are now in the last half year of their probation and have not, with one or two unimportant exceptions, studied any Oriental language except Marathi and Gujarati, the Commissioners do not see how it would be possible now, with due regard to the interests of the public service, to divert them to another Presidency. Nor are they able to offer any better suggestion than that those of them who may pass the final examination in June should be permitted to proceed in the ordinary course to the Presidency to which they have been assigned.

The case is different with regard to the 16 candidates selected for Bombay in 1869, who are only beginning their second half year of study, and who under a recent arrangement have all learnt one of the languages current in both divisions of the Presidency of Bengal, viz., Hindustani. If it were thought desirable to transfer these candidates to the last named Presidency they would still have nearly a year and a half for the study of a second prescribed language, whether Bengali or Hindi. It would, however, be for his Grace to consider how far such transfer should be enforced in the case of any candidates who, in the exercise of the choice given to them by the regulations, have chosen the Presidency of Bombay, and have been formally allotted to it.

If a transfer to the Presidency of Bengal should be decided upon the Commissioners would be glad to receive the earliest possible information as to the numbers to be assigned to the North-West Provinces and to the Lower Provinces respectively, in order that they may at once take the necessary steps for reallotting the candidates and giving them fresh instructions regarding their studies. In such re-allotment they would propose to consult as much as possible the wishes of the candidates themselves, giving a preference to those who stood highest in the examination at which they were selected.

In conclusion, I am to request, with reference to the last paragraph of your letter and to the arrangements now under consideration, that the Commissioners may be informed as early as may be convenient of

Transfer of selected candidates from Bombay to other Presidencies.

the number of candidates to be selected at the coming examination, and of the manner in which they should be distributed.

I have, &c.

The Under Secretary of State for India, to the Secretary, Civil Service Commission.

SIR, India Office, 11th January 1870.

I AM directed by the Secretary of State for India in Council, to acknowledge the receipt of your letter of the 7th instant, relative to the desired diversion to the Upper Provinces and Bengal of some of the candidates who have been selected for the Bombay Presidency.

In reply I am to state for the information of the Civil Service Commissioners, that the Duke of Argyll, having given his consideration to their views as stated in your letter and to the circumstances of the case, is of opinion that the candidates selected in 1868 for Bombay cannot with expedience or propriety be diverted to another Presidency.

But his Grace desires that as many of the 16 candidates selected in 1869 for Bombay as may be willing to have their destination changed to the Upper Provinces and Bengal, may be at once transferred to those divisions. The respective numbers for the two divisions should be as nine to seven, or as near to that proportion as may be found practicable.

The Duke of Argyll does not consider it necessary in the interests of the public service to enforce the transference of all the 16 Bombay candidates selected in 1869, above mentioned, to other parts of India. His Grace, therefore, will not be able to arrive at a decision with regard to the number of candidates to be selected this year for the different Presidencies and divisions, with a view to appointment in 1872, until he is made aware of the numbers which may be actually diverted by the process specified in the last paragraph, from Bombay to the Upper Provinces and Bengal. He has no doubt, therefore, that the Civil Service Commissioners will give him the earliest possible intimation as to the numbers so transferred.

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State, India Office.

SIR, 27th January 1870.

WITH reference to your letter of the 11th instant relative to the desired diversion to the Upper Provinces and Bengal of some of the candidates who have been selected for the Bombay Presidency.

I am directed by the Civil Service Commissioners to acquaint you for the information of the Secretary of State for India in Council, that the ten candidates, whose names are specified below, have accepted the offer made to them of being transferred to the Upper Provinces, and that one has consented to be diverted to Bengal. The remaining five candidates have elected to remain on the list as allotted to Bombay.

I am at the same time to express the regret of the Commissioners that in making these arrangements it has been found impossible to maintain the proportion between the two divisions of Bengal which was indicated by your letter.

I am, &c.

The Under Secretary of State, India Office, to the Secretary, Civil Service Commission.

Transfer of selected candidates from Bombay to other Presidencies.

SIR, India Office, 12th February 1870.

I AM directed by the Secretary of State for India in Council to acknowledge the receipt of your letter of the 27th ultimo, specifying, with reference to my communication of the 11th of January, the names of 10 candidates selected in 1869 for the Bombay Civil Service who have accepted the offer made to them of being transferred to the Upper Provinces, and of another of the Bombay candidates who has consented to be diverted to Bengal.

Number of candidates to be selected in 1870.

A re-allotment of the selected candidates of last year having thus to the above extent been effected, I am now desired by the Duke of Argyll to request that Her Majesty's Civil Service Commissioners will select, at the approaching examination for the Civil Service of India, 25 candidates, with a view to their appointment to the service in 1872. They should be allotted as follows :—

To Bengal - - - - - -	17
To the North-west Provinces, the Punjaub, and Oude	8

I am, &c.

The Under Secretary of State, India Office, to the Secretary, Civil Service Commission.

SIR, India Office, 1st March 1870.

WITH reference to my letter of the 12th ultimo, I am directed to acquaint you, for the information of Her Majesty's Civil Service Commissioners, that the Secretary of State for India in Council, upon a re-consideration of the question of the number of the candidates to be selected for the Indian Civil Service at the ensuing competitive examination, has decided that 40 instead of 25, should be then selected.

The Duke of Argyll requests that the Commissioners will accordingly select 40 candidates, with a view to their appointment to the service in 1872, allotting them as follows :—

To Bengal - - - - - -	21
To North-West Provinces, the Punjaub and Oude -	14
To Bombay - - - - - -	5

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State for India.

SIR, 5th March 1870.

I AM directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 1st instant, acquainting them with reference to your letter of the 12th ultimo, that upon a re-consideration of the question of the number of candidates to be selected at the ensuing examination for the Civil Service of India, the Secretary of State for India in Council has decided that 40 instead of 25 candidates shall be selected.

In compliance with the wish therein expressed the Commissioners will apportion these candidates among the several Presidencies as follows, viz. :—

To Bengal - - - - - -	21
To North-West Provinces, the Punjaub and Oude -	14
To Bombay - - - - - -	5

I have, &c.

Allotment of civilians to the various presidencies.

The Under Secretary of State, India Office, to the Secretary, Civil Service Commission.

SIR, India Office, 6th May 1870.

WITH reference to my letter of the 1st of March last, regarding the selection this year and allotment to the Presidencies of candidates for the Indian Civil Service, I am directed to state, for the information of the Civil Service Commissioners, that circumstances have been represented to the Duke of Argyll, rendering it advisable to diminish the number of civilians proposed by my letter above-cited to be assigned to Bengal and the Upper Provinces. His Grace requests, therefore, that the Commissioners will allot to those divisions five less than it was before intended to give to them, and make the whole allotment as follows:—

Bengal	15
North-West Provinces, the Punjaub and Oude	15
Madras	2
Bombay	8

I am, &c.

Amended rules for the study of Oriental languages in Bengal.

The Under Secretary of State, India Office, to the Secretary, Civil Service Commission.

SIR, India Office, 12th May 1870.

I AM directed by the Secretary of State in Council, to forward for the information of the Civil Service Commissioners, copies of the amended rules passed by the Viceroy in Council for the encouragement of the study of Oriental languages among the junior members of the Bengal Civil Service, together with a copy of the connected correspondence.

I am, &c.

The following AMENDED RULES for the ENCOURAGEMENT of the STUDY of ORIENTAL LANGUAGES among the JUNIOR MEMBERS of the BENGAL CIVIL SERVICE have been substituted for those notified under date 11th June, 1867, and are published for general information:—

I.—The "Rules for the Examination and Control of the newly appointed Members of the Bengal Civil Service" passed under date the 2nd October 1861 are cancelled.

II.—The following rules* are prescribed for the encouragement of the study of Oriental languages among the junior members of the Bengal Civil Service.

III.—The standards of examination, and the donations to be given to successful candidates will be as follows, viz.:—

	LANGUAGES.			
	Vernacular.	*Classical.*	*Donation on passing.*	
			Rs.	
(1.) High proficiency.	Hindoostanee		1,000	With certificate from the Presiding Examiner.
	Hindee		1,000	
	Bengalee		1,000	
	Ooryah		1,000	
	——	†Persian	2,000	
	——	Arabic	2,000	
	——	Sanscrit	2,000	

* These rules do not in any way affect the departmental examinations in law, language, &c., which junior civilians have to pass under the Orders of Local Governments according to what are called the 1st and 2nd Standards.

† Persian has been placed on the same footing as Arabic and Sanscrit because the Governor General in Council considers it very expedient specially to encourage the study of that language by the members of the Civil Service.

Amended rules for the study of Oriental languages in Bengal.

	Vernacular.	*Classical.*	*Donation on passing.*	
			Rs.	
(2.) Honours.	Hindoostanee		2,000	With diploma signed by the head of the Government of India.
	Hindee		2,000	
	Bengalee		2,000	
	——	*Persian	4,000	
	——	Arabic	4,000	
	——	Sanscrit	4,000	

IV.—The first language in which a civil servant will be permitted to offer himself for examination by either of the two higher standards will be—

For civil servants attached to the Lower Provinces of Bengal — Bengalee or Ooryah;
For civil servants attached to the Upper Provinces — Hindoostanee or Persian;

and it is not till after a certificate of high proficiency shall have been obtained in such language that a civil servant will be eligible to present himself for distinctions in other languages.

A civil servant shall be at liberty to present himself for examination in the obligatory and another language simultaneously; but no report of his proficiency in the *second* language shall be prepared unless he is declared to have passed in the obligatory language.

V.—No civil servant will ordinarily be permitted to appear more than twice as a candidate at any examination. But if a special recommendation be made by the examiners, a candidate will be allowed to appear at a third examination.

VI.—No civil servant will be permitted to present himself for the high proficiency or honour examinations after the expiration of seven and ten years respectively, counted from the date of his first arrival in India. No exception will be made to this rule on account of leave or any other cause.

VII.—Civil servants who may have passed examinations under the rules of 1861 (cancelled in paragraph I. above) shall not be eligible to compete at corresponding examinations in the same language or languages under the rules now passed.

VIII.—Examinations will be held quarterly, on the first Monday in January, April, July, and October of each year, at Calcutta. Civil servants desirous of attending examinations must apply for leave to do so to the Local Government, at least three months before the date of the examination.

IX.—The following is the test for the high proficiency examination:—

1. Construing with readiness and accuracy from the under-mentioned books—

(1.) Hindoostanee	1. Ikhwan-us-Safa. 2. Nasr-i-Be-Nazir. 3. Araish-i-Mahfil. 4.†The Musnaviyat of Sanda.
(2.) Hindee	1. Rajniti. 2. Prem Sagar. 3. Vidyankar. 4.†The Second Book of the Ramayana.
(3.) Bengalee	1. Dasa Kumar Charita. 2. Betal Panchabinshati. 3. Purush Parikhya.
(4.) Oorya	1. Hitopodesha. 2. Batris Singhasan. 3. The Songs of Jayadeva, otherwise known as the Gita Gobind.
(5.) Arabic	1. Ikhwan-us-Safa. 2. Nafhat-ul-Yaman.
(6.) Persian	1. Gulistan. 2. Bostan. 3. Anwari Soheili.
(7.) Sanscrit	1. Hitopodesha. 2. Raghuvansa.

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* Persian has been placed on the same footing as Arabic and Sanscrit because the Governor General in Council considers it very expedient specially to encourage the study of that language by the members of the Civil Service.

† These works will not form part of the Hindoostanee and Hindee tests respectively till the examination of January 1871.

Amended rules for the study of Oriental languages in Bengal.

2. Translating into English with accuracy a passage in narrative style, not taken from the test books.

3. Translating with accuracy of idiom and neatness of expression into the language in which the examination is held, an English paper in narrative style.

4. Translating in like manner a paper of English sentences.

X. The following is the test for the Honour Examination :—

1. Construing with readiness and accuracy from the under-mentioned books :

(1.) Hindoostanee	1. Nasr-i-Be-Nazir. 2. Fisanah-i-Ajaib. 3. Dewani Atash (first half). 4. Kuliyati Sauda, extracts from (College edition).
(2.) Hindee	1. Rukmini Parinaya. 2. Sabha Bilas. 3. Ramayan, by Tulsi Das. 4. Ram Gitaboli.
(3.) Bengalee	1. Kadambari. 2. Dasa Kumar Charita. 3. Mahabharata. 4. Prabodh Chandrika.
(4.) Arabic	1. Hammasah. 2. Taimur Namah. 3. Muqamati Hariri.
(5.) Persian	1. Akhlaqui Julali. 2. Inshai Abulfazl. 3. Sikandar Namah. 4. Dewani Hafiz.
(6.) Sanscrit	1. Viracharita. 2. Kirtarjuniya. 3. Sakuntala Nataka.

2. Translating into English with accuracy two passages, one in prose and the other in poetry, selected from some difficult work, not being a test book.

3. Translating a difficult passage from English with accuracy, elegance, and neatness of expression, and perfect correctness of spelling and grammar.

4. Conversing (in the vernacular languages) with accuracy and fluency.

XI. The honour examination will be of a searching nature, and the exercises, both oral and written, must be performed with such excellence as distinctly to establish a claim to eminent proficiency.

XII. Any civil servant attached to the Lower Provinces who may have obtained a certificate of high proficiency in Bengalee, and any civil servant attached to the Upper Provinces who may have obtained a similar certificate in Hindoostanee or Persian, under the rules of the 2nd October 1861, will be deemed to have satisfied the conditions laid down in Rule IV.

E. C. Bayley,
Secretary to the Government of India.

The Secretary, Civil Service Commission, to the Under Secretary of State, India.

Sir, 18th May 1870.

I am directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 12th instant, transmitting copies of the amended rules passed by the Viceroy in Council for the encouragement of the study of oriental languages among the junior members of the Bengal civil service, together with a copy of the connected correspondence.

I have, &c.

The Under Secretary of State, India Office, to the Secretary, Civil Service Commission.

Proposed changes in the regulations.

Sir, India Office, 30th June 1870.

I am directed to acknowledge the receipt of your letter of the 20th of May, transmitting a draft of regulations for the open competition for the Civil Service of India to be held in 1871.

2. I am instructed by the Duke of Argyll in Council to remark that in his opinion a clause should be introduced into the rules providing that no candidate shall be selected who fails to obtain a certain prescribed number of marks in English composition.

3. His Grace in Council would also wish to be informed whether it is the rule that if a candidate fails to obtain a certain minimum of marks in any subject, the marks which he does obtain in that subject are not allowed to count. If such be the rule, his Grace in Council approves of it, and thinks it should be extended to mathematics as well as to other subjects.

4. In all other respects the Secretary of State in Council approves of the proposed rules.

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State, India Office.

Sir, 8th July 1870.

I am directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 30th ult., relative to the proposed regulations for the open competition to be held in 1871 for the Civil Service of India.

With reference to the opinion expressed by the Secretary of State in Council, that a clause should be introduced into the rules providing that no candidate should be selected who failed to obtain a certain prescribed number of marks in English composition, I am to request that you will state to his Grace that they have always regarded it as one of the most important features of the scheme of examination laid down by Lord Macaulay and his colleagues in 1854 that no subject should be obligatory, but that every candidate should be permitted to show his ability under such heads of examination as he might select, and they think that excellent results have in practice been found to follow on the adoption of this principle. Moreover, if they are right in supposing that the object of the proposed clause is to secure that all selected candidates shall be competent to compose reports and despatches in correct and grammatical English, their experience has not been such as to lead them to think this safeguard necessary. The exercises under the head of English composition being usually framed with the view of testing, not merely grammatical accuracy or correctness of expression, but to a great extent also higher qualifications, such as fertility of ideas and clearness in the arrangement of them, it may well happen that a candidate may obtain a low mark in this subject without being incompetent to compose with tolerable correctness. As an instance of this the Commissioners have found on referring to the papers sent in at the open competition of this year, that though two of the selected candidates obtained under the head of English composition marks so low as to be indicated in the table by a cipher, both these gentlemen gave evidence in their answers to questions in the different subjects of examination, and in their translations from the languages which they took up, that they were able to express their thoughts correctly in grammatical English.

Proposed changes in the regulations.

The Civil Service Commissioners have thought it their duty to state their views and the result of their experience on this point for the consideration of the Secretary of State in Council, but if after mature deliberation, his Grace should still be of opinion that every candidate should be required to obtain a certain minimum number of marks, in English composition they will of course be prepared to introduce into the regulations a clause to this effect.

With regard to the other point mentioned in your letter, the Commissioners desire me to state that the method of marking which they have adopted for some years past, with the view of discouraging the superficial study of many subjects is described in an extract from their tenth report, which will be found appended to the annual tables of marks such as that herewith enclosed, of which copies were forwarded to you with my letter of 11th May last. The Commissioners learn with satisfaction that their practice in this respect, adopted in the exercise of the discretion vested in them as regards the superintendence of these examinations, meets in the main with the approval of the Duke of Argyll. With regard to mathematics they desire me to state that they have already had under consideration the question whether the exception made at the time, for reasons on which it is unnecessary now to enter in favour of this branch of study should be longer continued, and that attaching as they do great weight to any expression of the Duke of Argyll's views on such a point, they will henceforth discontinue it in accordance with his Grace's recommendation.

The Commissioners take this opportunity of adverting to the great difficulty which has on several occasions arisen, and will probably arise again in determining the ages of candidates who are natives of India. They think that such questions can rarely be decided in a satisfactory manner except in India itself, and they would suggest for the consideration of the Secretary of State whether it might not be desirable to require every native candidate to produce a certificate from the chief authorities of his presidency that he was within the prescribed limits. If his Grace should approve this suggestion it would be necessary to add to the regulations a note to the following effect:

"All candidates born in British India must produce certificates from the Government of India, or of any presidency in which they may have resided, that they are within the prescribed limits of age."

In conclusion I am to request with reference to the last note appended to the second regulation, that the Commissioners may be informed what fee the Secretary of State thinks it desirable to prescribe for the examination of 1871. They venture to suggest that it would appear to them reasonable if the sum were fixed at 5*l.* for each examination.

I have, &c.

The Under Secretary of State for India, to the Secretary, Civil Service Commission.

Sir, India Office, 22nd July 1870.

I am directed by the Secretary of State for India in Council, to acknowledge the receipt of your letter of the 8th of July, relative to the proposed regulations for the open competition for the Indian Civil Service, to be held in 1871.

2. Under the circumstances explained in your letter, the Duke of Argyll in Council will not press his suggestion that no candidate be selected who has not obtained a certain number of marks in English composition.

3. His Grace in Council is of opinion that the system of deducting a certain number of marks as a minimum from the total number obtained by a candidate in a particular subject, should be extended to mathematics, and he is glad to find that the Commissioners are disposed to make this alteration in the rules. Proposed changes in the regulations.

4. With reference to the difficulty which now exists as to the precise age of candidates who are natives of India, the Duke of Argyll in Council will act on the suggestion of the Commissioners, and direct that certificates from the Government of the Presidency or province of which the candidate is a resident shall hereafter be necessary.

5. In conclusion, I am directed to state that his Grace in Council considers that 5*l.* will be a proper sum to require as a fee for each examination.

I am, &c.

Regulations as settled by the Preceding Correspondence.

Regulations for 1871.

Enclosure.

Regulations for the Open Competition of 1871.

N.B.—The Regulations are liable to be altered in future years.

1. On Tuesday, March 28th, 1871, and following days, an Examination of Candidates will be held in London. At this examination not fewer than Candidates will be selected, if so many shall be found duly qualified. Of these will be selected for the Presidency of Bengal, [for the Upper Provinces, and for the Lower Provinces,] for that of Madras, and for that of Bombay.*—Notice will hereafter be given of the days and place of examination.

2. Any person desirous of competing at this examination, must produce to the Civil Service Commissioners, before the 1st of February 1871, evidence showing :—

(*a*) That he is a natural-born subject of Her Majesty.

(*b*) That his age on the 1st March 1871, will be above seventeen years and under twenty-one years. [N.B.—*In the case of natives of India this must be certified by the Government of India, or of the Presidency or Province in which the Candidate may have resided.*]

(*c*) That he has no disease, constitutional affection, or bodily infirmity unfitting him, or likely to unfit him for the Civil Service of India.†

(*d*) That he is of good moral character;

and must also, before the 1st February 1871, pay to the said Commissioners such fee as the Secretary of State for India may prescribe.‡

3. Should the evidence upon the above points be *primâ facie* satisfactory to the Civil Service Commissioners, the candidate will, upon payment of the prescribed fee, be admitted to the examination. The Commissioners may, however, in their discretion, at any time prior to the grant of the certificate of qualification herein-after referred to, institute such further inquiries as they may deem necessary; and if the result of such inquiries in the case of any candidate should be unsatisfactory to them in any of the above respects, he will be ineligible for admission to the Civil Service of India, and if already selected, will be removed from the position of a Probationer.

4. The Examination will take place only in the following branches of knowledge :—

	Marks.
English Composition - - - -	500
History of England—including that of the Laws and Constitution - - - - -	500
English Language and Literature - - -	500

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* The number of appointments to be made, and the number in each Presidency, &c., will be announced hereafter.

† Evidence of health and character must bear date not earlier than the 1st January 1871.

‡ The fee for this examination will be 5*l.*

Regulations for 1871.

	Marks.
Language, Literature, and History of Greece	750
" " " Rome	750
" " " France	375
" " " Germany	375
" " " Italy	375
Mathematics (pure and mixed)	1,250
Natural Science; that is, (1) Chemistry, including Heat, (2) Electricity and Magnetism, (3) Geology and Mineralogy, (4) Zoology, (5) Botany	1,000
*** The total (1,000) marks may be obtained by adequate proficiency in any two or more of the five branches of science included under this head.	
Moral Sciences; that is, Logic, Mental and Moral Philosophy	500
Sanskrit Language and Literature	500
Arabic Language and Literature	500

Candidates are at liberty to name, before February 1, 1871, any or all of these branches of knowledge. No subjects are *obligatory*.

5. The merit of the persons examined will be estimated by marks, and the number set opposite to each branch in the preceding regulation denotes the greatest number of marks that can be obtained in respect of it.

6. No candidate will be allowed any marks in respect of any subject of examination, unless he shall be considered to possess a *competent knowledge* of that subject.*

7. The Examination will be conducted by means of printed questions and written answers, and by *vivâ voce* Examination, as may be deemed necessary.

8. The marks obtained by each candidate in respect of each of the subjects in which he shall have been examined, will be added up, and the names of the candidates who shall have obtained a greater aggregate number of marks than any of the remaining candidates will be set forth in order of merit, and such candidates shall be deemed to be selected candidates for the Civil Service of India, provided they appear to be in other respects duly qualified; and shall be permitted to choose,† according to the order in which they stand, as long as a choice remains, the Presidency (and in Bengal, the division of the Presidency) to which they shall be appointed. Should any of the selected candidates become disqualified, the Secretary of State for India will determine whether the vacancy thus created shall be filled up or not. In the former case, the candidate next in order of merit and in other respects duly qualified, shall be deemed to be a selected candidate.

9. Selected candidates before proceeding to India, will be on probation for two years, during which time they will be examined periodically with the view of testing their progress in the following subjects :‡

	Marks.
1. Oriental Languages :	
Sanskrit	500
Vernacular§ Languages of India (each)	400
2. The History and Geography of India	350
3. Law	1,250
4. Political Economy	350

In these Examinations, as in the open competition, the merit of the candidates examined will be estimated by marks, and the number set opposite to each subject denotes the greatest number of marks that can be obtained in respect of it at any one

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* "Nothing can be further from our wish than to hold out premiums for knowledge "of wide surface and of small depth. *We are of opinion that a candidate ought to "be allowed no credit at all for taking up a subject in which he is a mere smatterer.*"—Report of Committee of 1854. A deduction of marks will be made under each subject, *including Mathematics*.

† This right must be exercised immediately after the result of the examination is announced, on such day as may be fixed by the Civil Service Commissioners.

‡ Full instructions as to the course of study to be pursued will be issued to the successful candidates as soon as possible after the result of the open competition is declared.

§ Including, besides the languages prescribed for the several Presidencies, such other languages as may, with the approval of the Commissioners, be taken up as subjects of examination.

Examination. The Examination will be conducted by means of printed questions and written answers, and by *viva voce* Examination, as may be deemed necessary. The last of these Examinations will be held at the close of the second year of probation, and will be called the "Final Examination," at which it will be decided whether a selected candidate is qualified for the Civil Service of India. Regulations for 1871.

10. Any candidate who, at any of the periodical Examinations, shall appear to have wilfully neglected his studies, or to be physically incapacitated for pursuing the prescribed course of training, will be liable to have his name removed from the list of selected candidates.

11. No candidate will be permitted to proceed to India before he shall have passed the Final Examination, and received a certificate of qualification from the Civil Service Commissioners, or after he shall have attained the age of twenty-four years.

12. The selected candidates who, at the Final Examination, shall be found to have a competent knowledge of the subjects specified in Regulation 9, and who shall have satisfied the Civil Service Commissioners of their eligibility in respect of age, health, and character, shall be certified by the said Commissioners to be entitled to be appointed to the Civil Service of India, provided they shall comply with the regulations in force, at the time for that Service.

13. The seniority in the Civil Service of India of the selected candidates shall be determined according to the order in which they stand on the list resulting from the Final Examination.

14. Applications from persons desirous to be admitted as candidates are to be addressed to the Secretary to the Civil Service Commissioners, London, S.W., from whom the proper form for the purpose may be obtained.

July 23rd, 1870.

NOTE—(1.) *The Secretary of State for India in Council has authorised the Civil Service Commissioners to state that it is his intention to allow the sum of* 50*l. after each of the three first half years of probation, and* 150*l. after the last half year to each selected candidate who shall have passed the required Examinations to the satisfaction of the Commissioners, and shall have complied with such rules as may be laid down for the guidance of selected candidates.*

(2.) *All selected candidates will be required, after having passed the second periodical Examination, to attend at the India Office for the purpose of entering into an agreement binding themselves, amongst other things, to refund in certain cases the amount of their allowance in the event of their failing to proceed to India. For a candidate under age a surety will be required.*

(3.) *After passing the Final Examination each candidate will be required to attend again at the India Office, with the view of entering into covenants and giving a bond for* 1,000*l., jointly with two sureties, for the due fulfilment of the same. The stamps payable on these documents amount to* 3*l.* 10*s.*

(4.) *Candidates rejected at the Final Examination of* 1873 *will in no case be allowed to present themselves for re-examination.*

The Secretary, India Office, to the Secretary, Civil Service Commission.

Examination for the India Forest Service.

SIR, India Office, 1st July 1870.

I am directed by his Grace the Secretary of State for India to inform you that his Excellency the Governor-General of India in Council has requested him to nominate six young men, between the ages of 17 and 22, to be sent to France or Germany, to commence their training for the Forest Service of India in March next, provided that so many men "fully competent" present themselves for examination.

I am therefore to request that you will move the Civil Service Commission to render this department the same assistance in conducting the examination as has been given on former occasions.

It is proposed at once to issue advertisements inviting persons to send in their testimonials and certificates by the 31st of October, and requiring them to appear personally before Dr. Cleghorn and the Medical Board on the 21st, 22nd, and 23rd of November.

Examination for the India Forest Service.

The Duke of Argyll hopes that the Commission will be able to fix the 24th and following days for holding their examination into the proficiency of the candidates in the several subjects. I am desired to inquire whether these arrangements will be agreeable to the Commission.

I am further to acquaint you, in regard to the changes of age recommended by the Government of India, that his Grace, whilst admitting that 25 is too high for the maximum age, is of opinion that 22 is too low for the candidates to be trained in France, and at all events he deems it inexpedient to make suddenly so great a reduction as the latter age would be.

He has accordingly determined to fix the maximum age at 23.

He has also thought it desirable to make a change in the terms by which greater prominence will be given to the sciences of chemistry and botany.

I am, &c.

The Secretary, Civil Service Commission, to the Under Secretary of State for India, Foreign Office.

Sir, Civil Service Commission, 4th July 1870.

I am directed by the Civil Service Commissioners to acknowledge the receipt of your letter of the 1st inst., relative to the proposed examination for six appointments in the India Forest Service.

And in reply I am to acquaint you for the information of the Secretary of State for India in Council, that the Commissioners will readily give their assistance in the manner proposed, and that they will be prepared to commence the examination on the day named in your letter, viz., the 24th November next.

I have, &c.

2.—INSTRUCTIONS ISSUED TO CANDIDATES.

2 (A). Special Instructions* to the Candidates selected in 1868, with regard to their Final Examination, commencing on Tuesday, the 7th of June, 1870.

I.—Languages.

Final examination. Candidates of 1868. Special instructions.

Candidates will be expected to show a thorough knowledge of the grammar of the languages which they take up; facility in translating from and into each language, the examination not being confined to the prescribed Text Books; familiarity with the written character; and some proficiency in speaking the language.

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* The "General Instructions" issued to these candidates were printed in the Commissioners' 13th Report, Appendix iii., p. 298.

Text Books.

Final examination. Candidates of 1868. Special instructions.

Hindustani.—Forbes's Totá Kaháni.
Ikhwán-us-Safá, p. 5–end.
Khirad Afroz, pp. 114–149, 225–266.
Urdu Petitions, Nos. 1, 2, 7, 14, 25, 36, 42, 53, 62, 70, 80, 91.

Hindi.—Sinhásan Battísí.
Prem Ságar, pp. 1–124, 188–209 (omitting poetry).
Hindi Reader, pp. 23–43, 57–89, and 113–122.

Bengali.—Forbes's Selections, pp. 10–43.
Naba Nárí, pp. 1–159, 228–231, and 255–320.
Bángálár Itihás, capp. 7, 8, 9.
Selections from the Som Prakásh.
Bengali Petitions, pp. 1–35.

Gujarati.—Fourth Reading Book, pp. 1–45 (omitting poetry).
Fifth Reading Book, pp. 1–80, and 110–end (omitting poetry).
Seventh Reading Book, pp. 1–80.

Marathi.—Æsop's Fables. Fables 1–60.
Fifth Reading Book, pp. 28–77, 84–103, 134–231, and 263–265.
Vachan Málá, Nos. I., II., XLVIII. to LI., LIV., LV., LXIX., LXX.

Tamil.—Pope's Tamil Reader, pp. 1–145.
Panchatantram. Book I.
Pope's Handbook, pp. 174–196.
Robertson's Tamil Papers; the Arzis, p. 173 to end.
Wright's Official Documents, first 10 Arzis.

Telugu.—Brown's Grammar, especially Books V. to X., and the Appendix.
Telugu Selections. Stories 1–70, Official Papers, Dialogues (especially at pp. 55–64), and Vikramárka Tales, pp. 1–25.
Brown's Reader, pp. 131–170.
Lane's Official Documents, Nos. 1 to 20, and 91–95.

Sanskrit.—The Grammar.
Johnson's Mahábhárata Selections, pp. 1–34, 61–86.
The first two Books of the Hitopadesa.
The poetry of the fourth Book of the Hitopadesa (omitting the account of the 16 Sandhis near the end).
Raghuvansa, Books 1, 2, 5, 6. (Stenzler's Edition.)

Arabic.—The Grammar.
Alif Laila, from the 101st to the 121st night; also pp. 53–103 of vol. 2 (Calcutta edition), and pp. 223–258 of vol. 1 (Macnaghten's edition).
Ikhwán-us-Safá, pp. 16–41.
Nufhut Alyumun, pp. 36–56, and 100–126.
Timur Nameh, pp. 38–58.
Mukamat-ul-Hureeree, first 6 Mukams.

Final Examination. Candidates of 1868. Special instructions.

Persian.—Gulistan, books 1–6.
Anwari Suhaili (Hertford edition). Stories 4, 8–14; also 20 pages beginning at the introduction to Book III.
Bostan. Stories 20–31.
Inshac Abul Fazl, pp. 20–29.

II.—Law.

1. *General Jurisprudence.*—Candidates will be expected to show that they have mastered the general contents of the prescribed text-books, the principles to be extracted from them, and their bearings on one another.

Text Books.

Blackstone's Commentaries (Kerr's edition), from § ii. of the Introduction to Book I. cap. xviii.; or the following portions of Stephen's Commentaries:—§ ii.–iv. of the Introduction. Books I. and III. and Book IV. Part 1; Part 2, cap. i.; and Part 3, cap. i.
The Institutes of Justinian.
Austin's Lectures, I., V., and VI.
Maine's Ancient Law.
Lord Mackenzie's Studies in Roman Law. (A knowledge of the comparative views of the laws of France and Scotland will not be required.)*
Bentham's Theory of Legislation by Dumont.—Principles of Legislation, cap. vii. to end; Principles of Civil Code (omitting cap. v. of Part III.).

2. *Notes of Cases and Law of Evidence.*—Each candidate will be required to furnish five reports, drawn up as described in the "General Instructions," with particular attention to clearness of language, and method in the analytical summaries. The subjects of these reports are to be as follows:—

1. The investigation before a London police magistrate of a grave criminal charge, ending in committal for trial by jury. The attendance for this report may commence on the first remand; but in such case, the purport of the evidence taken before the first remand must be clearly and fully given in the report.

2. The whole business, of whatever kind, transacted in a London police court in any one day. (No separate summary required.)

3–4. Two important civil causes tried by a special jury in London or Westminster, or at Kingston.

5. A case heard in the Judicial Committee of the Privy Council, on appeal from India.† If this cannot be obtained, the cases argued and decided in any one day in the Court for the consideration of appeals in Criminal cases, or a case heard in one of the Courts in Banc, at Westminster, in the Exchequer Chamber, or in the House of Lords, will be received as equivalent.

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* The whole of this work may be read with advantage by candidates for the Prize in Law; as also Bentham's Principles of the Penal Code.

† All candidates for the prize will be expected to report an Indian Appeal Case.

Final examination. Candidates of 1868. Special instructions.

Besides continuing the general study of the leading rules of evidence and procedure, candidates will be required to read attentively the chapters in Pitt Taylor's Law of Evidence, treating of—

Grounds of Belief.
Presumptive Evidence.
Best Evidence.
Secondary Evidence.
Hearsay, and the cases in which the rule as to hearsay is relaxed.
Admissions and Confessions.
Private Writings.

3. *Indian Law:*

All candidates must be thoroughly acquainted with the following works :—

The Indian Penal Code.
The Code of Civil Procedure.
The Code of Criminal Procedure.
Macnaghten's Principles of Hindu and Mahommedan Law.
The Intestate and Testamentary Succession Act.
The Letters Patent for the High Courts of Judicature.

III.—History and Geography of India.*

Candidates will be expected to show a general knowledge of Elphinstone's History of India, and to be well acquainted with the Geography of India. Under the head of History they will be examined more particularly in the following works :—

Mill's British India, Vols. III. and VI.
Wilson's continuation of Mill, chapter 1.
Marshman's History of India, chapters 8–38.

IV.—Political Economy.†

Candidates will be examined more particularly in Mill's Political Economy ; but they must be prepared to answer questions referring, for the sake of illustration or comparison, to Adam Smith and McCulloch's Notes.

N.B.—*Candidates are reminded that at this examination it will be decided whether they are qualified for the Civil Service of India, and that no Candidate can be regarded as qualified who is not found to have a competent knowledge of the several subjects above specified.*

As the duties of civilians in India are such as often require the performance of journeys on horseback, candidates will be expected to produce before the time fixed for the final examination satisfactory evidence of their ability in this respect.

* Candidates for the prize will be expected to have read not only the general histories of India, but also such special works as the histories of Orme and Duff, and Kaye's Afghan War, and Life of Metcalfe.

† Candidates for the prize will be expected to have included in their reading the first 21 chapters, at least, of Ricardo's Political Economy, Northcote's History of Twenty Years of Financial Policy, and Göschen's Theory of Foreign Exchanges.

Final examination. Candidates of 1868. Special instructions.

Prizes.

Prizes of the value set forth below will be offered for competition in the several subjects, and will be awarded according to the combined results of the general examination, and of a separate prize examination. The Civil Service Commissioners are only authorised to award these prizes on condition that a high standard of proficiency is attained.

	£
Law, one prize of	100
Sanskrit	75
Hindustani	50
Hindi	50
Bengali	50
Tamil	50
Telugu	50
Gujarati	50
Marathi	50
Arabic	50
Persian	50
History and Geography of India	50
Political Economy	50

Second periodical examination. Candidates of 1869. Special instructions.

2 (B). Special Instructions to the Candidates selected in 1869, with regard to their Second Periodical Examination, commencing on Tuesday the 3rd of May 1870.

N.B.—*In each subject candidates must be prepared to answer questions referring, for the sake of illustration or comparison, to the books prescribed for the first Examination.*

I.—Languages.

Candidates will be examined in the grammar of the vernacular languages which they respectively take up, and in the under-mentioned text-books. Passages will be set from the text-books for translation into English, and for re-translation into the original, as well as a simple narrative passage from some English book for translation. An extract will also be given from some easy native book other than the text-book.

Special value will be attached to correct and idiomatic writing of the vernacular languages. Candidates are recommended to practise as much as possible re-translating into the original languages passages translated from the text-books. Marks will also be given for correct pronunciation of the native sounds.

Hindustani.—Totá Kahání, p. 82–end.
Ikhwán-us-Safá, pp. 5–45.

Hindi.—Sinhásan Battísí, Stories 17–32.
Prem Ságar, pp. 1–40 (omitting poetry).

Second periodical examination. Candidates of 1869. Special instructions.

Bengali.—Naba Nárí, pp. 1–90.

Marathi.—Fifth Reading Book, pp. 28–91.

Tamil.—Pope's Handbook, pp. 7–15, 23–125, 174–196, and 202–206.
Pope's Reader, pp. 50–104.
Rhenius' Grammar, 3rd ed., pp. 76–186.

Telugu.—Brown's Grammar; especially Books 2 to 7.
Brown's Reader, pp. 5–76.

Sanskrit.—The Grammar.
Johnson's Mahábhárata Selections, pp. 61–86.
Hitopadesa, Book i., (omitting introduction) to the commencement of Hiranyaka's Story of his own Life.

Arabic.—Alif Laila. Vol. 1 of Macnaghten's Edition, pp. 200–230.
Ikhwán-us-Safá, pp. 16–41.

Persian.—Gulistán, caps. ii., iii., iv., and Stories 1 to 8 of cap. v.
Anwári Suhailí. Hertford Edition, 4th Story, pp. 67–82.

II.—Law.

1. *General Jurisprudence.*—The books or portions of books to be studied are :—

Blackstone's Commentaries (Kerr's edition), Book I., cap. ix.–xviii.; or, if Kerr's edition cannot be procured, the following portions of Stephen's Commentaries :—Book III., Book IV., Part 1. cap. ii., and cap. viii. to end; Part 2, cap. i.; and Part 3, cap. i.

Justinian's Institutes (Sandars's edition), Book I., and Book II. to Tit. ix., section 6, with the Editor's Introduction.

Maine's Ancient Law, chapters i.–v.

2. *Notes of Cases and Law of Evidence.*—Not fewer than ten reports must be supplied by each candidate, drawn up as required by the "General Instructions," and consisting exclusively of cases decided in the Courts of Assize, in the Central Criminal Court, or in the Superior Courts of London, Edinburgh, and Dublin. Five of these reports must relate to civil actions, and five to criminal trials. No case should be taken in which the defendant or prisoner is unrepresented by counsel.

The Law of Evidence is to be studied more especially under the heads mentioned in the "General Instructions." The book recommended is Pitt Taylor's "Law of Evidence."

3. *Indian Law :—*
The Penal Code.
The Code of Criminal Procedure.
The Code of Civil Procedure.
Acts of the Government of India, No. 23 of 1861, and No. 9 of 1863.

III.—History and Geography of India.

Elphinstone, from Book VI. to end.

The Map of India, with special reference to the prescribed portion of History.

Geography of India, by Duncan.

Second periodical examination. Candidates of 1869. Special instructions.

IV.—Political Economy.

M'Culloch's edition of Adam Smith's Wealth of Nations, 1863, Books III., IV., and V., with the Supplemental Notes and Dissertations as far as they relate to these books.

After the examination prizes will be given as follows:—

			£
For the greatest proficiency in		Law (Jurisprudence) - -	10
Ditto	ditto	Law (Notes of Cases, &c.) -	10
Ditto	ditto	Law (Indian) - - -	10
Ditto	ditto	Hindustani - - -	10
Ditto	ditto	Hindi - - - -	10
Ditto	ditto	Bengali - - -	10
Ditto	ditto	Tamil - - -	10
Ditto	ditto	Telugu - - -	10
Ditto	ditto	Marathi - - -	10
Ditto	ditto	History and Geography of India - - -	10
Ditto	ditto	Political Economy - -	10
Ditto	ditto	Sanskrit - - -	10
Ditto	ditto	Arabic - - -	10
Ditto	ditto	Persian - - -	10

No prize will be awarded except for a respectable degree of proficiency; no candidate will receive a prize who does not exhibit satisfactory proficiency in each of the prescribed subjects; and no candidate will receive a prize in respect of any subject for which a prize was awarded to him at the last examination.

N.B.—No candidate who, in any of the prescribed subjects, shall fail to show satisfactory proficiency, will receive marks in respect of any additional language.

Third periodical examination. Candidates of 1869. Special instructions.

2 (C). Special Instructions to the Candidates selected in 1869, with regard to their Third Periodical Examination, commencing on Tuesday the 18th October 1870.

N.B.—*In each subject candidates must be prepared to answer questions referring, for the sake of illustration or comparison, to the books prescribed for the previous Examinations.*

I.—Languages.

Passages will be set from the text-books for translation into English, and for re-translation into the original, as well as a passage from some English book for translation. An extract will also be given from some native book other than the text-book, and questions will be asked on the Grammar.

Special value will be attached to correct and idiomatic writing of the vernacular languages. Candidates are recommended to practise as much as possible retranslating into the original languages passages translated from the text-books. Marks will also be given for correct pronunciation of the native sounds.

N.B.—No candidate who, in any of the prescribed subjects, shall fail to show satisfactory proficiency, will receive marks in respect of any additional language.

Third periodical examination. Candidates of 1869. Special instructions.

Text Books.

Hindustani.—Ikhwân-us-Safá, pp. 1–4 and 45–end.

Hindi.—Prem Ságar, pp. 41–89 (omitting poetry).
Hindi Reader, pp. 3–43.

Bengali.—Naba Nárí, pp. 91–159, 255–283.

Marathi.—Fifth Reading Book, pp. 92–103, 134–158.
Lipidhárá, pp. 1–40.

Tamil.—Pope's Reader, pp. 104–145.
Panchatantram, 1st Book.
Rhenius' Grammar, pp. 43–75, 187–220.

Telugu.—Brown's Grammar, especially Books 6–10, with the Appendix.
Brown's Reader, ch. ii., pp. 131–188.

Sanskrit.—Hitopadesa, from the beginning of Hiranyaka's History in Book I. to the end of the "Sandpiper and the Sea" in Book II.

Arabic.—Nufhut Alyumun, pp. 36–56.
Alif Laila (Macnaghten's Ed.), vol. i., pp. 230–258.

Persian.—Gulistán, Books V. (stories 9–20) and VI.
Anwári Suhaili, Stories 8–15, pp. 87–112.

Gujarati.—Shapurji Edalgi's Grammar.
Fifth Reading Book, pp. 1–80 (omitting poetry).

II.—Law.

1. *General Jurisprudence.*—The books or portions of books to be studied are :—

Justinian's Institutes (Sandars's edition), from Tit. x. of Book II. to the end of Book IV.

Maine's Ancient Law, chapters vi.–x.

2. *Notes of Cases and Law of Evidence.*—Not fewer than six reports must be supplied by each candidate, drawn up as required by the General Instructions, and referring exclusively to cases of importance tried before juries in the Courts of Assize, in the Central Criminal Court, or in the Superior Courts of London, Edinburgh, and Dublin. Three of these reports must relate to civil actions, and three to criminal trials. The civil cases must consist entirely of actions tried before special juries. The criminal cases must be selected for some special quality, such as the gravity of the offence charged (*e.g.*, varieties of homicide, perjury, forgery, aggravated assaults, &c.), the nature of the evidence produced, the number of prisoners, &c.

No case should be taken in which either party is unrepresented by counsel.

Particular attention should be paid to clearness of language and method in the analytical summaries.

The Law of Evidence is to be studied in the manner described in the "General Instructions."

3. *Indian Law :—*

The Indian Penal Code.

The Intestate and Testamentary Succession Act.

Macnaghten's Principles of Hindu and Mahommedan Law, edited by Wilson.

Third periodical examination. Candidates of 1869. Special instructions.

III.—History and Geography of India.

Mill's History of British India, edited by Wilson, vol. iii.
Marshman's History of India, chap. viii.–xviii.
The Map of India, and Thornton's Gazetteer (in one volume) with special reference to the prescribed portion of History.

IV.—Political Economy.

Principles of Political Economy, by J. S. Mill, Books I., II., and first 15 chapters of Book III.

After the examination prizes will be awarded as follows:—

	£
For the greatest proficiency in Law (Jurisprudence) - -	10
Ditto ditto Law (Notes of Cases, &c.) -	10
Ditto ditto Law (Indian) - - -	10
Ditto ditto Hindustani - - -	10
Ditto ditto Hindi - - -	10
Ditto ditto Bengali - - -	10
Ditto ditto Tamil - - -	10
Ditto ditto Telugu - - -	10
Ditto ditto Marathi - - -	10
Ditto ditto History and Geography of India - - -	10
Ditto ditto Political Economy - -	10
Ditto ditto Sanskrit - - -	10
Ditto ditto Arabic - - -	10
Ditto ditto Persian - - -	10
Ditto ditto Gujarati - - -	10

No prize will be given except for a respectable degree of proficiency; no candidate will receive a prize who does not exhibit satisfactory proficiency in each of the prescribed subjects; and no candidate will receive a prize in respect of any subject for which a prize was awarded to him at a previous examination.

Candidates of 1870. General instructions.

2 (D). General Instructions respecting the Periodical Examinations of the Candidates selected in 1870.

It is necessary that the selected candidates should at once commence their special preparation. They will remember that they have been selected on the ground of superior proficiency in subjects which (with, perhaps, the exception of Arabic and Sanskrit) are included within the ordinary range of English education. The Civil Service Commissioners believe that no better presumptive evidence of fitness can be obtained; but it must rest with the candidates themselves to give more conclusive evidence, by showing aptitude in acquiring the special knowledge necessary for them in the positions which they hope to gain. They will be expected and required to devote their whole time to the pursuit of this special knowledge. They must bear in mind that at the several examinations which they have to pass, the requirements of universities or colleges will not be regarded as affording any excuse for imperfect preparation; and further, that any one who should accept the position

of a selected candidate without the intention of using all diligence to qualify himself for the service, would be acting unfairly alike to the Government of India and to the candidate who might have been selected in his place. Each candidate, in choosing his place of residence, should carefully consider what facilities will be afforded him for the prosecution of his studies; and in this respect it should be remembered that London offers advantages for the study of law, and also, perhaps, of some of the vernacular languages, which can be obtained in no other part of the United Kingdom. Candidates of 1870. General instructions.

The regulations relating to the periodical examinations to be undergone during the period of probation have already been communicated to every candidate. That there may be no misapprehension on the subject, a second copy of those regulations is herewith enclosed. After each examination, the half-yearly allowance* will be paid to those candidates who shall have passed to the satisfaction of the Commissioners. Deductions may be made from this allowance in the case of candidates whose examination is unsatisfactory, in proportion to the degree of their deficiency. After each examination prizes will be awarded.

The following instructions will suffice to indicate generally the course of study to be pursued in the several subjects, but special instructions with reference to the preparation required for each of the periodical examinations will be given at the proper time.

I.—Languages.

Every candidate will be required to pass to the satisfaction of the Commissioners in the languages prescribed for his presidency or division of presidency, viz., for,—

N. W. Provinces, Oude, and the Punjab	Hindi. Hindustani.
Bengal (Lower Provinces)	Bengali. Hindustani.
Bombay	Hindustani. Marathi.

The final test of qualification in each of these languages will be as nearly as possible that which was formerly imposed on civil servants in India before they were appointed to active duties: it will include a sound knowledge of the grammar, facility in translating from and into the language, familiarity with the written character, and some proficiency in speaking the language.†

In addition to the two prescribed languages, candidates may take up any two of the following, viz.,—Sanskrit, Arabic, and Persian. Languages other than these can only be taken up by special permission of the Commissioners.‡ Proficiency in additional languages will not be accepted as compensating for deficiency in those which are prescribed; and no candidate, who in any of the prescribed subjects shall fail to show satisfactory proficiency, will receive marks in respect of an additional language.

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* *i.e.*, 50*l.* after the 1st, 2nd, and 3rd, and 150*l.* after the final examination.

† Extract from 13th Report of the Civil Service Commissioners as to the necessity of acquiring a competent knowledge of the vernacular languages:—"We consider "that at the 'Final Examinations' no amount of proficiency in other subjects "should be accepted as compensating for deficiency in this essential qualification."

‡ Candidates desiring this permission should make early application for it.

Candidates of 1870. General instructions.

II.—Law.

Examinations will be held under the following heads :—

1. General Jurisprudence.
2. Proceedings in English Courts of Justice, and English Law of Evidence.
3. Laws of India.

1. Under the head of "*General Jurisprudence*" candidates will be expected to have mastered the contents of the following books, or such portions of them as may be indicated by special instructions :—

Blackstone's Commentaries, edited by R. M. Kerr, LL.D., Vol. I. (containing the "Introduction" and the "Rights of Persons").

Austin's Jurisprudence, Vol. I.

The Institutes of Justinian, edited by Sandars.

Maine's "Ancient Law."

Studies in Roman Law, with comparative views of the Laws of France, England, and Scotland. By Lord Mackenzie.

Bentham's Theory of Legislation. By Dumont.

2. Under the second head every candidate is required to send in, at least six weeks before each half-yearly examination, reports of a specified number of cases heard by himself in courts of justice, in accordance with the regulations set forth below. Should, however, the set of reports sent in by a candidate in any half year fall below a reasonable standard, either in the choice of subject-matter or in the manner of treating it, or should the *vivâ voce* examination show that no sufficient knowledge of the meaning and conduct of the proceedings reported has been gained, the candidate may be required to attend and report a further number of cases from such courts as the Civil Service Commissioners may prescribe.

The object aimed at in this course of reporting is, that the candidate should acquire clear ideas as to the conduct of a judicial inquiry into such facts as form the ordinary staple of business in the civil and criminal courts of this country, and some familiarity with the principles on which the rules of evidence and procedure enforced in those courts are founded. Candidates will, therefore, do well to avoid rather than to select (for the first year at least) cases involving abstruse legal questions or difficult technicalities.

The following points are to be attended to in the preparation, &c. of the reports :—

(*a.*) Each report should contain the title of the court, the names of the judge and the parties, the time and place of trial, and the matter of the charge, cause of action, &c. The reports should state, fully and methodically, the substance of the evidence given (reporting it in the first person, and marking whether it was elicited in chief, cross, or re-examination)—the objections made to evidence, whether oral or documentary—the points, if any, on which a conflict of evidence has arisen—the arguments of counsel—the view taken by the judge—and the ultimate result ; besides noting the course of procedure, and any other details which may appear worthy of observation.

(*b.*) The candidate is to underline, in the body of his report, such portions of the evidence as appear to him specially cogent and

material, and to state in the margin opposite, in the shortest possible note, the reason why. Candidates of 1870. General instructions.

(*c.*) In addition to the more extended report, a very short analytical statement of each case is to be given, showing, in criminal cases, the facts necessary to constitute the offence charged, and in civil cases, the exact points in issue, with the bearing of the evidence upon them. In working out this summary, clearness and precision should be steadily kept in view.

(*d.*) Each candidate is to append to his reports a declaration that they have been obtained by his personal attendance in court, and are *bonâ fide* his own composition, without revision or help given by another person or derived from another report.

(*e.*) Foolscap paper is to be used (on one side only) with a margin; and attention must be paid to handwriting, which should be clear and large.

Before commencing their attendance in court, candidates are advised to read either in Blackstone's Commentaries, or in some other elementary work, an account of the proceedings in a civil action and a criminal trial. Mr. Pitt Taylor's Treatise on the *Law of Evidence* is the book recommended for reading and reference in connexion with the entire course of reporting. At each periodical examination a paper will be set, and *vivâ voce* questions asked, to test the practical knowledge acquired by the candidates through thus following the proceedings of the courts of justice, and the familiarity they have gained with the main principles and rules of the Law of Evidence, as laid down in Pitt Taylor's work.

3. The examination in the *Laws of India* will include papers and *vivâ voce* examination in the following branches :—

(*a.*) The Letters Patent issued under the Act 24 & 25 Vict. c. 104., for establishing High Courts of Judicature in India.

(*b.*) The Code of Civil Procedure.

(*c.*) The Indian Penal Code.

(*d.*) The Code of Criminal Procedure.

(*e.*) The Intestate and Testamentary Succession (British India) Act, 1865.

(*f.*) Hindu Law.

(*g.*) Mahommedan Law.

III.—History and Geography of India.

The following books may be studied with advantage :—

Elphinstone's History of India.

Mill's History of British India, edited and continued by Professor Wilson.

Marshman's History of India.

Kaye's Afghan War.

Kaye's Life of Lord Metcalfe.

Orme's History of India.

Geography of India (Allen's series or Duncan's).

Thornton's Gazetteer.

Candidates of 1870. General instructions.

IV.—Political Economy.

The works recommended are :—

M'Culloch's edition of Adam Smith's Wealth of Nations, last edition (1863).

J. S. Mill's Principles of Political Economy.

Ricardo's Political Economy.

Northcote's Twenty Years of Financial Policy.

Göschen on Foreign Exchanges.

First periodical examination. Candidates of 1870. Special instructions.

2 (E). Special Instructions to the Candidates selected in 1870, with regard to their First Periodical Examination, commencing on the 1st of November 1870.

I.—Languages.

Candidates will be expected to have studied the grammar of the vernacular languages in which they are to be examined, to be able to translate portions of some simple text-book in each language, and to translate into it a few simple sentences of English. Passages translated from the text-books will also be set for re-translation.

Care should be taken to acquire from the first, as far as possible, a correct pronunciation of the native sounds.

In all Examinations in the Vernacular Languages special value will be attached to correct and idiomatic writing of the language. Candidates are recommended to practise as much as possible re-translating into the original languages passages translated from the text-books.

In the prescribed languages the books on which candidates will be examined are :—

Hindustani.—Williams' Grammar, or Forbes's.
Forbes' Totá Kahání (first 82 pages).

Hindi.—Ballantyne's Grammar.
Sinhásan Battísí (first 16 stories).

Bengali.—Wengers' edition of Yates' Grammar.
Forbes' Bengali Reader, pp. 10–43.
Naba Nári, pp. 1–38.

Marathi.—Stevenson's Grammar (omitting all the small print from p. 41 to pp. 75).
Bellairs' Grammar, pp. 5–31.
Æsop's Fables (first 65 fables in Candy's edition).

Candidates who take up Sanskrit, Arabic, or Persian should read the following works :— First periodical examination. Candidates of 1870. Special instructions.

Sanskrit.—The Grammar ; more especially the rules of Sandhi, the regular declensions of the nouns, the pronouns, and the common verbs, as far as the four conjugational tenses, the reduplicated perfect, and the two futures, in the Parasmaipada and Átmanepada.

Johnson's Mahábhárata Selections, the three first extracts (pp. 1–34.)

Arabic.—The Grammar. (Wright, Forbes, or Stewart.)

Selections. (Forbes or Schalch.)

Alif Laila, from the 101st to the 121st page.

Persian.—The Grammar. (Lee's Edition of Sir W. Jones, Forbes, or Mirza Ibrahim.)

Selections. (Gladwin or Forbes.)

Gulistan, cap. i.

II. Law.

1. *General Jurisprudence.*—The books or portions of books to be studied are :—

Blackstone's Commentaries (Kerr's Edition), from the beginning of section ii. of the Introduction to the end of chapter viii., Book I. ; or, if Kerr's edition cannot be procured, the following portions of Stephen's Commentaries :—Sections 2, 3, and 4 of the Introduction, Book I., and the first seven chapters of the First Part of Book IV.

Austin's Lectures, I., V., and VI.

2. *Notes of Cases, and Law of Evidence.*—Not fewer than twelve reports must be supplied by each candidate, drawn up as required by the "General Instructions," and consisting exclusively of cases decided by a single judge or magistrate without the aid of a jury. Four of these reports must relate to civil cases decided by the judge of a county court (or, in Scotland, of a sheriff's court) where both parties are represented by counsel or attorney. Seven must relate to proceedings in the police courts of London, Edinburgh, or Dublin, presided over by stipendiary magistrates, embracing—

(*a.*) Cases in which the magistrate exercises final jurisdiction.

(*b.*) Cases in which the magistrate commits for trial by a jury.

One must consist of a separate report of the whole of the business, of whatever kind, transacted in a police court during any one day.

The *Law of Evidence* is to be studied in the manner indicated in the "General Instructions."

3. *Indian Law :—*

The Penal Code.

The Code of Criminal Procedure.

III.—History and Geography of India.

Elphinstone, to the end of Book V.

The Map of India.

Geography of India (Allen's series or Duncan's).

First periodical examination. Candidates of 1870. Special instructions.

IV.—Political Economy.

M'Culloch's edition of Adam Smith's Wealth of Nations, 1863. Introductory Discourse, and Books I. and II. (with the Supplemental Notes and Dissertations as far as they relate to those books), omitting the Digression concerning variations in the value of Silver, Book I., cap. xi., pt. 3, and the account of the Scotch Banking System in the latter portion of cap. ii., Book II.

After the examination prizes will be awarded as follows :—

			£
For the greatest proficiency in		Law (Jurisprudence) - -	10
Ditto	ditto	Law (Notes of Cases, &c.) -	10
Ditto	ditto	Law (Indian) - - -	10
Ditto	ditto	Hindustani - - -	10
Ditto	ditto	Hindi - - -	10
Ditto	ditto	Bengali - - -	10
Ditto	ditto	Marathi - - -	10
Ditto	ditto	History and Geography of India - - -	10
Ditto	ditto	Political Economy - -	10
Ditto	ditto	Sanskrit - - -	10
Ditto	ditto	Arabic - - -	10
Ditto	ditto	Persian - - -	10

No prize will be given except for a respectable degree of proficiency; and no candidate will receive a prize who does not exhibit satisfactory proficiency in each of the prescribed subjects.

3.—EXAMINATION PAPERS

Open Competition, 1870.

Set at the Open Competitive Examination, April 1870; together with the Regulations applying to that Examination.

Regulations.

Regulations.

1. On Tuesday, April 5th, 1870, and following days, an examination of candidates will be held in London. At this examination not fewer than 40 candidates will be selected, if so many shall be found duly qualified. Of these, 30 will be selected for the Presidency of Bengal, [15 for the Upper Provinces, and 15 for the Lower Provinces,] 2 for that of Madras, and 8 for that of Bombay.—Notice will hereafter be given of the days and place of examination.
2. Any natural-born subject of Her Majesty, who shall be desirous of entering the Civil Service of India, will be entitled to be examined at such examination, provided he shall, on or before the 1st of February 1870, have transmitted to the Civil Service Commissioners, London, S.W. :*—

   (*a.*) A certificate of his birth, showing that his age on the 1st March 1870 will be above seventeen years and under twenty-one years;

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* The proper form of application may be obtained from the office of the Civil Service Commissioners.

(*b.*) A certificate, signed by a physician or surgeon, of his having no disease, constitutional affection, or bodily infirmity unfitting him for the Civil Service of India ;*

(*c.*) Satisfactory proof of good moral character ;*

(*d.*) A statement of those of the branches of knowledge herein-after enumerated in which he desires to be examined.

3. In any case in which a doubt may arise as to the eligibility of a candidate in respect of age, health, or character, such inquiries as may be necessary will be instituted by the Civil Service Commissioners.

4. The examination will take place only in the following branches of knowledge† :—

	Marks.
English Composition - - - -	500
History of England—including that of the Laws and Constitution - - - -	500
English Language and Literature - -	500
Language, Literature, and History of Greece -	750
" " Rome -	750
" " France -	375
" " Germany -	375
" " Italy -	375
Mathematics (pure and mixed) - - -	1,250
Natural Science; that is (1.) Chemistry, including Heat; (2.) Electricity and Magnetism; (3.) Geology and Mineralogy; (4.) Zoology; (5.) Botany - - - - -	1,000
*** The total (1,000 marks) may be obtained by adequate proficiency in any two or more of the five branches of science included under this head.	
Moral Sciences; that is, Logic, Mental and Moral Philosophy - - - -	500
Sanskrit Language and Literature - -	500
Arabic Language and Literature - -	500

5. The merit of the persons examined will be estimated by marks, and the number set opposite to each branch in the preceding regulation denotes the greatest number of marks that can be obtained in respect of it.

6. No candidate will be allowed any marks in respect of any subject of examination unless he shall be considered to possess a *competent knowledge* of that subject.‡

7. The examination will be conducted by means of printed questions and written answers, and by *viva voce* examination, as may be deemed necessary.

8. The marks obtained by each candidate, in respect of each of the subjects in which he shall have been examined, will be added

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* Evidence of health and character must bear date not earlier than the 1st January 1870.

† It should be understood that candidates are at liberty to name, at their pleasure, any or all of these branches of knowledge, and that no subjects are *obligatory*.

‡ "Nothing can be further from our wish than to hold out premiums for know-
"ledge of wide surface and of small depth. *We are of opinion that a candidate ought*
"*to be allowed no credit at all for taking up a subject in which he is a mere smatterer.*"
—Report of Committee of 1854.

OPEN COMPETITION, 1870.

Arrangements.

up, and the names of the 40 candidates who shall have obtained a greater aggregate number of marks than any of the remaining candidates will be set forth in order of merit, and such candidates shall be deemed to be selected candidates for the Civil Service of India, provided they are in other respects duly qualified; and shall be permitted to choose*, according to the order in which they stand, as long as a choice remains, the Presidency (and, in Bengal, the division of the Presidency) to which they shall be appointed.

ARRANGEMENTS FOR THE OPEN COMPETITION OF 1870.

NOTICES TO CANDIDATES.

1. This paper should be carefully preserved, and produced when required during the course of the examination.
2. It is requested that the candidate will acknowledge the receipt of these instructions by writing his name on the outside of the enclosed envelope, and returning it through the post.
3. It is requested that any candidate intending to withdraw will give early notice of such intention, and return this paper.
4. On the first day of the examination, candidates will be required to state on a form which will be placed before them their addresses during the examination, and they are requested thereafter to keep the Commissioners informed of all changes in their address until they have received the announcement of the result of the examination.
5. The result of the examination will probably be communicated by letter to each candidate about the beginning of May. The successful candidates will be required to attend in London, *immediately after this announcement*, for the purpose of being medically examined, of exercising their choice of presidency, and of receiving instructions as to the special studies to be pursued during their two years of probation.

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6. Candidates will be required to leave their hats, overcoats, umbrellas, and any books or papers which they may have brought with them in the room provided for this purpose, before proceeding to the examination rooms.
7. The examination will in each case begin at the time named in the following list, but the door of the examination room will be kept open for half an hour afterwards, in order that candidates may not suffer from accidental delays. Candidates arriving after the expiration of that half hour will not be admitted.
8. No candidate will be allowed to quit the examination room on any day until the expiration of half an hour from the time fixed for the commencement of the examination.
9. It is requested that the number placed in the margin hereof (and *not* the name of the candidate) be placed outside each book sent in to the Examiners.
10. No candidate who has left the examination room during the hours assigned to paper-work will be permitted to return to the paper which he has quitted.

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* This right must be exercised immediately after the result of the examination is announced, on such day as may be fixed by the Civil Service Commissioners.

11. Candidates wishing for explanation of the meaning of any of the questions before them may apply to the Examiners. With this exception perfect silence is to be preserved in the examination room; and any candidate guilty of disorderly or improper conduct in or about the room will be liable to be excluded from the examination.
12. Any candidate detected in the use of a book or manuscript brought with him for his assistance, or in copying from the papers of any other candidate, or in giving or receiving assistance of any description, will be regarded as disqualified, and his name will be removed from the list.

EXAMINATION ON PAPER.

At the New Building of the University of London, Burlington Gardens, New Bond Street.

Tuesday, 5th April, from	10 A.M. *to* 1 P.M.	English Composition.
	3 P.M. *to* 6 P.M.	English History.
Wednesday, 6th April	10 A.M. *to* 1 P.M.	English Composition.
	3 P.M. *to* 6 P.M.	English Language and Literature.
Thursday, 7th April	10 A.M. *to* 1 P.M.	Translation from Latin.
	3 P.M. *to* 6 P.M.	Translation into Latin.
Friday, 8th April	10 A.M. *to* 1 P.M.	Roman History, &c.
	3 P.M. *to* 6 P.M.	Translation from Greek.
Saturday, 9th April	10 A.M. *to* 1 P.M.	Translation into Greek.
	3 P.M. *to* 6 P.M.	Greek History, &c.
Monday, 11th April	10 A.M. *to* 1 P.M.	Pure Mathematics.
	3 P.M. *to* 6 P.M.	
Tuesday, 12th April	10 A.M. *to* 1 P.M.	Mixed Mathematics.
	3 P.M. *to* 6 P.M.	
Wednesday, 13th April	10 A.M. *to* 1 P.M.	French language, &c.
	3 P.M. *to* 6 P.M.	
Thursday, 14th April	10 A.M. *to* 1 P.M.	Moral Sciences.
	3 P.M. *to* 6 P.M.	
Monday, 18th April	10 A.M. *to* 1 P.M.	Geology.
	3 P.M. *to* 6 P.M.	
Tuesday, 19th April	10 A.M. *to* 1 P.M.	Zoology.
	3 P.M. *to* 6 P.M.	
Wednesday, 20th April	10 A.M. *to* 1 P.M.	Electricity and Magnetism.
	3 P.M. *to* 6 P.M.	
Thursday, 21st April	10 A.M. *to* 1 P.M.	German and Arabic.
	3 P.M. *to* 6 P.M.	
Friday, 22nd April	10 A.M. *to* 1 P.M.	Chemistry.
	3 P.M. *to* 6 P.M.	
Saturday, 23rd April	10 A.M. *to* 1 P.M.	Botany and Sanskrit.
	3 P.M. *to* 6 P.M.	
Monday, 25th April	10 A.M. *to* 1 P.M.	Italian.
	3 P.M. *to* 6 P.M.	

There will be a *vivâ voce* examination in each subject.

OPEN COMPETITION, 1870.

Examiners.

EXAMINERS.

English Language, Literature, History, and Composition.	M. ARNOLD, Esq. L. H. COURTNEY, Esq. J. G. FITCH, Esq. C. H. PEARSON, Esq. W. STEBBING, Esq. C. KNIGHT WATSON, Esq.
Greek and Latin Languages, &c.	Rev. LEWIS CAMPBELL. Rev. OSBORNE GORDON. Rev. Dr. KENNEDY. Rev. G. MARSHALL. Rev. J. B. MAYOR. F. A. PALEY, Esq.
French Language, &c.	M. BUÉ. M. DUPONT. Professor KARCHER.
German Language, &c.	Dr. ALTHAUS.
Italian Language, &c.	Signor DE TIVOLI.
Mathematics	Rev. B. PRICE. E. J. ROUTH, Esq. Rev. R. TOWNSEND.
Chemistry, Electricity, and Magnetism.	Professor LIVEING.
Geology and Mineralogy	Professor MORRIS.
Zoology	Dr. M. FOSTER.
Botany	Dr. T. THOMSON.
Moral Sciences	A. BAIN, Esq. Sir A. GRANT, Bart.
Sanskrit Language, &c.	E. B. COWELL, Esq.
Arabic Language, &c.	Colonel J. W. J. OUSELEY.

ENGLISH COMPOSITION (1).

M. ARNOLD, Esq.

Tuesday, April 5th. 10 A.M. to 1 P.M.

Write an Essay on *one* of the following subjects :—

1. Draw out the literary differences between the age of Elizabeth in England and the age of Louis the Fourteenth in France.
2. Describe the character, European position, and policy of Henry the Eighth, Francis the First, and Charles the Fifth.
3. Experience.

ENGLISH HISTORY.

OPEN COMPETITION, 1870.

L. H. COURTNEY, Esq.

Tuesday, April 5th. 3 P.M. to 6 P.M.

[N.B.—*No Candidate is permitted to answer more than* Six *questions.*]

1. "Here witnesseth on this book of gospels, that Ælfwig the Red "hath bought himself out from Ælfsige the Abbot, and all the "convent, for one pound. To this is witness all the convent "in Bath. Christ blind him who setteth this writ aside." Explain the transaction thus recorded, and contrast the legal *status* of Ælfwig before and after it. When did bondage cease to exist in England, and what were the principal causes leading to its extinction?
2. What was the position of a bishop in the political organization of the Anglo-Saxon kingdom?
3. Compare the claims of Harold and William to the crown of England. Describe the course pursued by the latter in the interval between the battle of Hastings and his coronation.
4. State the possessions of Richard I. on succeeding to the English crown. What form of government did he provide for England when he left for the Crusade?
5. What laws regulating labour and trade were enacted in the reign of Edward III.? State the provisions of the first Poor Law, and the time of its enactment. How far, if at all, does the policy of the present Poor Law differ from it?
6. Write a life of *one* of the following—
   John of Gaunt.
   Robert Earl of Leicester.
   Lord Bolingbroke.
7. What were *Inquisitiones post mortem?* Under what formalities, by what authority, and for what purpose were they held; and when did they cease to be holden? Is there anything analogous to them in our present administrative system?
8. Family characteristics are sometimes said to appear in alternate generations. Assuming this to be true, would it throw any light on the vexed question of the moral character of Henry VIII.? Investigate the same problem with reference to the conduct of Henry's sisters.
9. Sketch briefly the conduct of Elizabeth and her officers of state, bishops and archbishops included, towards Roman Catholics and Puritans.
10. How did the Lord Treasurer Burghley propose to meet the decline in the value of money happening in his time? Can any political movements of the period be traced to the social changes arising from this cause? What device has been recently adopted to obviate changes in the value of settled payments?
11. Describe the public fortunes of *one* of the following families;—
    Percy Ratcliff Seymour.
12. Narrate the history of the differences between Charles I. and his Scotch subjects, and the bearing they had on his contest with the Long Parliament. What were the chief articles of the Solemn League and Covenant?
13. Describe the incidents of Cromwell's campaign in Ireland. State the policy he subsequently pursued towards that part of the Commonwealth, and trace its effects upon the island.
14. Write a life of Lord Chancellor Shaftesbury.

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15. State the principal articles of the Act of Union with Scotland. Name and characterise the statesmen and agents who must be credited with the design and completion of the Union.
16. Give a sketch of the lives and characters of *one* of the following pairs, pointing out the traits of likeness and contrast in the pair you select:—

    The two Cecils.
    The two Villiers'.
    The two Pitts.

17. Give an outline of the course of settlement of Ulster, of any one of the Atlantic States of America, of Nova Scotia, or of any one of the Australian Colonies.
18. What was the occasion of the war with the United States in 1812? Describe its principal incidents, and the articles of the treaty at its close.
19. Describe at length the organization of our representative institutions before and after the Reform Act of 1832.

ENGLISH COMPOSITION (2).

W. STEBBING, Esq.

Wednesday, April 6th. 10 A.M. to 1 P.M.

1. Write a short Essay on the reflections suggested by a library.
2. Write out the story of any Epic, or other narrative poem, English or foreign.
3. Turn into prose the following Epitaph by Pope on Charles Buckhurst, Earl of Dorset:

    "Dorset, the grace of Courts, the Muses' pride,
    Patron of arts, and judge of nature, died.
    The scourge of pride, though sanctified or great,
    Of fops in learning, and of knaves in state:
    Yet soft his nature, though severe his lay,
    His anger moral, and his wisdom gay.
    Bless'd satirist! who touch'd the mean so true,
    As show'd vice had his hate and pity too.
    Bless'd courtier! who could King and country please,
    Yet sacred keep his friendships, and his ease.
    Bless'd peer! his great forefathers' every grace
    Reflecting, and reflected in his race;
    Where other Buckhursts, other Dorsets shine,
    And patrons still, or poets, deck the line."

ENGLISH LANGUAGE AND LITERATURE.

C. KNIGHT WATSON, ESQ., M.A., F.S.A.

Wednesday, April 6th. 3 P.M. to 6 P.M.

N.B.—*No candidate is permitted to answer more than* Six *questions. It is desirable that one at least should be taken from each of the three sections into which the Paper is divided.*

SECTION I.

LANGUAGE.

1. Enumerate in order of date the historical events which have successively affected the language of this country from the earliest

times, either by enriching its vocabulary, or by modifying its inflectional system. To what extent may the French language be said to have maintained an independent existence in this country between the Conquest and the end of the fourteenth century? State the evidence extant as to its use during that period, (1) in schools, (2) in courts of law.

2. "Also Englysche men þeyȝ hy hadde from þe begynninge þre maner speche, "Souþeron, Norþeron, and Myddel speche as hy come of þre maner people "of Germania; noþeles by commyxstion and mellynge furst with Danes "afterward wiþ Normans, in menye þe contray longage is apeyred and som "useþ strange *wlaffynge, chyterynge, harrynge,* and *garrynge* and *grisbitinge.*"

Discuss the statement made in the above passage, and the grounds on which it has been impugned. Give the name and date of the author. In which of the "þre maner speche" is it written, and how would it have stood if written in either of the other two? Give ready criteria for distinguishing the three dialects, and enumerate the principal works which have been written in each. Give the etymology and meaning of the words in italics.

3. Classify English pronouns. Endeavour to clear up the difficulties which attend the use of '*self*' in its various forms. Discuss the connection between '*mine*' and '*my*,' '*thine*' and '*thy*.' What is the derivation of '*such*' and '*each*,' respectively?

4. Trace the history and explain the significance of the termination *ing*. Show the importance of the inquiry with reference to the formation of the participle.

5. Indicate the points of difference in the grammar of the English language as it existed in Chaucer's time, and as it exists in our own.

6. Discuss *fully* the meaning and origin of the 'inseparable' particles in modern English, and mention some of those which have become obsolete.

7. Annotate and explain the following words and phrases as regards their form or construction as each case may seem to require. Of the words in italics you must give the etymology: of the letters or portions of words in italics, you must trace the source. Ago. Now-a-days. A*m.* A*rt.* Wa*s.* *Gain*say. Kin*d*red. C*h*amb*e*r. For the *nonce.* Plente*ous.* Island. Bre*th*re*n.* Shame*faced.* *Wig. Ditto. Counterpane. Squirrel. Nook. Oriel. Palfrey. Ermine. Lumberroom. Mushroom. Bridegroom. Cruet. Dittie. Unawares.* 'For Christ his sake.' For their sakes. To *forsake.* 'They have been ever of old.' He owned to being of age. It was all along of your awk*w*ardness. The Lord *alloweth* the righte*ous.* 'Who shall let me now on this vile body from to wreak my wrong.'

SECTION II.

HISTORY OF LITERATURE.

8. Enumerate in detail the various influences which were at work in the fourteenth century to lay the foundations of that supremacy which Chaucer won as the Father of English Poetry. State all that is known of his life, as succinctly as you can.

9. Specify, with dates, the successive translations of the Bible into the English tongue. Illustrate as fully as you can the important part which they have played in forming English Literature and

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English Character. Give numerous examples of words and phrases which might seem to call for a careful revision of the so-called 'authorized' version, on grounds independent of correct translation.

10. Point out and illustrate the nature and precise extent of the influence which has been exercised at various periods on English Literature by the literatures of other countries, and give a general estimate of the effect which on the whole you believe to have been produced.
11. Among the various forces roused into play by the Reformation in England, distinguish between those which were, and those which were not, favourable to Literature and Learning. Illustrate your meaning by examples.
12. Estimate the influence of the Civil Wars on English Literature in the seventeenth century. In what sense is it true that when "Milton lost his eyes, Poetry lost hers"?
13. Write a short history of the English Drama from the earliest times up to Shakespeare. Give the plot of the first English Comedy and the first English Tragedy respectively.
14. Sketch the progress of historical composition during the eighteenth century.

SECTION III.

LITERATURE.

15. State what is known respecting the authorship and the manuscripts of the Vision concerning Piers the Ploughman and of Piers Ploughman's Crede? Give an account of the general purport of these poems. Name a dozen words in them which are now used in a different sense. What anticipations of the tone and temper of the English mind at a later age can you discern in the Vision? Explain the allusions in the following passages:

(1) Costantyns coffres
In which is þe catel
þat Gregorie's god-children
hav yuel dispended.

(2) þe doughtiest doctour
and deuynoure of þe trinitee
was Austyn þe olde
and heighest of þe foure.

(3) Longeus ..... þis blind bachelour.

(4) þo Dysmas my broþer
bi-soughte yow of grace.

16. Write down a list of the Canterbury Pilgrims. Show from internal evidence that the Tales are in a fragmentary state. What time would appear to have been occupied in the journey? Discuss the genuineness of the "Tale of Gamelyn," the "Flower and the Leaf," and the "Court of Love." Explain the following lines:

(1.) But in Pilates voys he gan to crye.
(2.) His augrym stones.
(3.) For al day meteth men atte unset stevene.
(4.) Yet sawgh I brente the schippes happesteres.
(5.) Ye, blessed be alway a lewed man
That nat but oonly his believe can.
(6.) He may ful soone of age have his haire.
(7.) O glotony! wel ought us on the pleyne!
(8.) Lo, thus saith Arnold of the Newe-toun
As his Rosarie maketh mencioun.

17. What does Spenser himself tell us of the purport of the Fairy Queen? What evidence have we that the books vii.–xii. ever existed? This poem has been called "the great emanation of

the imagination of Protestant England in the sixteenth century." Criticise this designation. In what language has Milton spoken of Spenser? Quote the passage (or its substance) in which Spenser speaks of his intention of writing a poem on the war between England and Spain in the reign of Elizabeth. Quote, too, portions of the description of Una, and of the Ode to Heavenly Beauty, *or* any other passage noted for its poetical excellence.

Explain the following passages :—

1. During their quiet *treague*
2. *Embost* with *bale*
3. Yet charge of them was to a porter hight
4. From worldly cares himself he did *esloyne*

. . . . . .

From every work he chalenged *essoyne.*

5. Three ages such as mortall men *contrive*
6. But onely *vented* up her *umbriere.*

18. In which of Shakespeare's plays do the following characters occur? *Sly. Balthazar. Sir Toby Belch. Prospero. Imogen. Jaques. Launce. Pistol. Slender. Edgar. Dogberry. Claudio. Hermione. Viola. Porteous. Shallow?* Discuss Shakespeare's use of the Supernatural. Macbeth has been called the "most purely tragic of Shakespeare's plays." Compare it in this respect with Hamlet, or with Othello, taking as your test Aristotle's definition of Tragedy as "effecting through pity and fear the correction and refinement of such passions."

Explain the following passages:

(1) This is no world
To play with mammets and to tilt with lips.

(2) I do profess to be no less than I seem ..... to
fight when I cannot choose and to eat no fish.

(3) Fortune's blows
When most struck home being gentle wounded craves
A noble cunning.

(4) The King doth wake to night and takes his rouse
Keeps wassail, and the swaggering upspring reels.

(5) What cannot be preserved when fortune takes
Patience her injury a mockery makes.

(6) If trembling I inhabit then protest me
The baby of a girl.

(7) Now we'll together and the chance of goodness
Be like our warranted quarrel.

Name in each case the speaker, and give a clue to the context.

19. "The subject of Paradise Lost is the finest that has ever been chosen for "heroic poetry." Can this dictum of Mr. Hallam's be admitted unreservedly? What indications, direct and indirect, do we find in Paradise Lost of Milton's blindness? Give the plot of *Comus*, and Johnson's criticism on it; also give an analysis of the *Areopagitica*. What place has been assigned to Milton as a writer of English prose. Give examples from Paradise Lost of the Pathetic. Discuss Milton's use of Allegory and of Similes.

20. To what do you attribute the eminence which Dryden has attained in English Literature? With what views were the following works composed, and with what success were they attended? "Absalom and Achitophel," "The Hind and the Panther," and the "Religio Laici." Who are severally the following characters: *Abdael. Absalom. Achitophel. Barzillai. Corah. Saul.*

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Shimei. Agag. The Hare. The Fox. The Wolf. The Bear. The Boar. The Hind. The Panther. What mistakes has Johnson made in his Life of Dryden. Explain the allusions in the following passages:

(1.) In exile with his godlike prince he mourned
For him he suffered, and with him returned.

(2.) The welcome news is in the letter found;
The carrier's not commissioned to expound.

(3.) Such were the pleasing triumphe of the sky
For James his late nocturnal victory.

21. State what you know of the following Books. Name in each case the authors, dates, and purport; and with regard to *four* of them give a more detailed estimate of their literary value: *Essay on Dramatic Poesy. Microcosmographia. Mirror of Magistrates. Urn Burial. Volpone. Drapier's Letters. The Confessio Amantis. The King's Quhair. The Defence of Poesie. The Shepherd's Calendar. The Purple Island. History of Edward V. Oceana. Timber. Tarwater. The Wisdom of the Ancients. The True Obedience of a Christian Man. The Barons Wars. The Spectator. The Laws of Ecclesiastical Polity. The Virgin Martyr. The Liberty of Prophesying. Cato. Table Talk. Athenæ Oxonienses.*

TRANSLATION FROM LATIN.

Rev. J. B. MAYOR.

Thursday, April 7th. 10 A.M. to 1 P.M.

Translate:—

Hæc ego quum viderem, (neque enim erant occulta,) senatum, sine quo civitas stare non posset, omnino de civitate esse sublatum: consules, qui publici consilii duces esse deberent, perfecisse, ut per ipsos publicum consilium funditus tolleretur: eos, qui plurimum possent, opponi omnibus concionibus, falso, sed formidolose tamen, auctores ad perniciem meam: conciones haberi quotidie contra me: vocem pro me ac pro republica neminem mittere: intenta signa legionum existimari cervicibus ac bonis vestris, falso, sed putari tamen: conjuratorum copias veteres, et fusam illam ac superatam Catilinæ manum importunam novo duce et insperata commutatione rerum esse renovatam:—hæc quum viderem, quid agerem, judices? scio enim, tum non mihi vestrum studium, sed meum prope vestro defuisse. Contenderem contra tribunum plebis privatus armis? Vicissent improbos boni, fortes inertes: interfectus esset is, qui hac una medicina sola potuit a reipublicæ peste depelli. Quid deinde? quis reliqua præstaret? cui denique erat dubium, quin ille sanguis tribunicius, nullo præsertim publico consilio profusus, consules ultores et defensores esset habiturus? quum quidem in concione dixisset, aut mihi semel pereundum aut bis esse vincendum.

Cicero.

Nondum tamen summa moliri Agrippina audebat, ni prætoriarum cohortium cura exsolverentur Lusius Geta et Rufius Crispinus; quos Messallinæ memores et liberis ejus devinctos credebat. Igitur, distrahi cohortes ambitu duorum, et, si ab uno regerentur, intentiorem fore disciplinam adseverante uxore, transfertur regimen cohortium ad Burrum Afranium, egregiæ militaris famæ, gnarum tamen, cujus sponte

præficeretur. Suum quoque fastigium Agrippina extollere altius: carpento Capitolium ingredi; qui mos, sacerdotibus et sacris antiquitus concessus, venerationem augebat feminæ; quam imperatore genitam, sororem ejus, qui rerum potitus sit, et conjugem et matrem fuisse, unicum ad hunc diem exemplum est. Inter quæ præcipuus propugnator ejus, Vitellius, validissima gratia, ætate extrema (adeo incertæ sunt potentium res) accusatione conripitur, deferente Junio Lupo, senatore. Is crimina majestatis et cupidinem imperii objectabat. Præbuissetque aures Cæsar, nisi Agrippinæ minis magis quam precibus mutatus esset, ut accusatori aqua atque igne interdiceret. Hactenus Vitellius voluerat.

Tacitus.

Quo magis his credas, puer hunc ego parvus Ofellam
Integris opibus novi non latius usum
Quam nunc accisis. Videas metato in agello
Cum pecore et gnatis fortem mercede colonum,
"Non ego," narrantem, "temere edi luce profesta
Quidquam præter olus fumosæ cum pede pernæ.
Ac mihi seu longum post tempus venerat hospes,
Sive operum vacuo gratus conviva per imbrem
Vicinus, bene erat non piscibus urbe petitis,
Sed pullo atque hædo; tum pensilis uva secundas
Et nux ornabat mensas cum duplice ficu:
Post hoc ludus erat culpa potare magistra;
Ac venerata Ceres, ita culmo surgeret alto,
Explicuit vino contractæ seria frontis.
Sæviat atque novos moveat Fortuna tumultus,
Quantum hinc imminuet? Quanto aut ego parcius aut vos,
O pueri, nituistis, ut huc novus incola venit?
Nam propriæ telluris herum natura neque illum
Nec me nec quemquam statuit: nos expulit ille;
Illum aut nequities aut vafri inscitia juris,
Postremum expellet certe vivacior heres."

Horace.

Hæc est illa dies, mihi quam Rubiconis ad undas
Promissam memini, cujus spe movimus arma,
In quam distulimus vetitos remeare triumphos.
Hæc eadem est, hodie quæ pignera, quæque penates
Reddat, et emerito faciat vos Marte colonos.
Hæc, fato quæ teste probet, quis justius arma
Sumserit: hæc acies victum factura nocentem est.
Si pro me patriam ferro flammisque petistis,
Nunc pugnate, truces, gladiosque exsolvite culpa.
Nulla manus, belli mutato judice, pura est.
Non mihi res agitur, sed vos ut libera sitis
Turba, precor, gentes ut jus habeatis in omnes.
Ipse ego privatæ cupidus me reddere vitæ,
Plebeiaque toga modicum componere civem:
Omnia dum vobis liceant, nil esse recuso.
Invidia regnate mea.

Lucan.

OPEN COMPETITION, 1870.

TRANSLATION INTO LATIN.

Rev. OSBORNE GORDON.

Thursday, April 7th. 3 P.M. to 6 P.M.

Translate into Latin Prose:—

Tragedy and comedy were now beginning to be grafted on the lyric and choric song; first one actor was provided to relieve the chorus, and then two actors were introduced to sustain the characters and carry on a dialogue, in such manner that the songs of the chorus, and the interlocutions of the actors formed a continuous piece. Solon after having heard Thespis acting (as all the early composers did, both tragic and comic) in his own comedy, asked him afterwards if he was not ashamed to pronounce such falsehoods before so large an audience. And when Thespis answered, that there was no harm in saying and doing such things merely for amusement, Solon indignantly exclaimed, striking the ground with his stick, "If once we come to praise and esteem such "amusement as this we shall quickly find the effects of it in our daily "transactions." For the authenticity of this anecdote, it would be rash to vouch; but we may at least treat it as the protest of some philosopher against the deceptions of the drama, and mark the early struggles of that literature in which Athens afterwards attained such unrivalled excellence.

For Elegiacs:—

Full many a glorious morning have I seen
Flatter the mountain tops with sovereign eye,
Kissing with golden face the meadows green,
Gilding pale streams with heavenly alchemy,
Anon permit the basest clouds to ride
With ugly rack on his celestial face,
And from the forlorn world his visage hide,
Stealing unseen to west with this disgrace.
E'en so my sun one early morn did shine
With all triumphant splendour on my brow,
But out! alack! he was but one hour mine:
The region cloud hath masked me from him now;
Yet him for this my love no whit disdaineth,
Suns of the world may stain, when heaven's sun staineth.

LANGUAGE, LITERATURE, AND HISTORY OF ROME.

Rev. G. MARSHALL.

Friday, April 8th. 10 A.M. to 1 P.M.

No Candidate is permitted to answer more than eight *questions. It is desirable that two at least should be taken from each of the three sections into which the paper is divided.*

1. What were the chief points of difference between the writers of the Augustan, and of the subsequent age of Latin literature (1) in the use of particles: (2) in the construction and sense of certain verbs? Is the distinction more marked in prose or verse?

OPEN COMPETITION, 1870.

2. (1) Trace the origin of the following English words, and show how any modification of meaning arose: profligate, genial, pilgrim, peculiar, journey, prevent, prestige, author, libertine, jovial, privilege.

(2) Give the Latin names of the following places, and explain the law according to which the change has taken place: Besançon, Tivoli, Coblentz, Oporto, Grenoble, Lodi, Tarragona, Chester, Piacenza, Aix Modena, Lerida. Mention any analogous changes in other words to illustrate your answer.

3. Translate, with any necessary explanation, the following phrases: *fœnus unciarium, sensus communis, argentum bigatum, caducæ hæreditates, maris expers, sarta tecta, tempestiva convivia, operæ subsecivæ, operæ theatrales, saga sumere, versuram facere mensium quinque, quadringentis sestertium, A. D. VIII. Id. Febr., homo nullius stipendii, H.M.N.S.*

4. What is the proper force of each of the Latin cases? Notice any deviations from the ordinary usage. What is meant by "the Virgilian use of the Dative"? How do you account for such forms as—*Anxuri, domi, militiæque, Vesperi, familias, aquai?*

SECTION II.

5. Mention the chief particulars that have come down to us of the life of Terence, and especially the data furnished by his own writings. To what causes can we ascribe the similarity of his plots? Had the style of Terence much share in forming the literary language of Rome?

6. What public speakers, of whose oratory any characteristics are preserved, rose to eminence at Rome before the time of Cicero? Which of the extant orations of Cicero were not delivered, and for what reason? Can you account for the fact that satire flourished among the Romans after the decline of eloquence?

7. Quote the judgment which Horace passes upon ancient and contemporary poets. To what Latin writings of an early date does he expressly refer, and to what effect? Do you find allusion to authors of his own day in Virgil? Show the estimation in which Virgil and Horace were held after their death among their countrymen.

8. To what extent did the study of philosophy influence the literature of Rome? Which of the rival schools do you consider most congenial to the Roman character, and which of the more distinguished Latin writers can you refer to any particular school?

SECTION III.

9. It has been said on high authority, "In modern history the English alone have had a career like that of the Romans. These two histories must therefore ever remain the most important ones."

In what respects can a parallel be most closely drawn between the constitutional development of Rome and England? Give dates and facts with your answer.

10. Describe the position of the principal Roman colonies in Italy, and the help which they furnished towards making Rome mistress of the peninsula. Did the Roman senate change its system in dealing with nations beyond the pale of Italy? What was the foreign policy of Tiberius?

OPEN COMPETITION, 1870.

11. Give some account of Sertorius, Mithridates, and Arminius, with the generals to whom they were respectively opposed. What light does the history of Jugurtha throw upon the morality of public men at Rome.

12. Explain the organization of the Roman army at the period with which you are most familiar. Were any improvements in arms and tactics borrowed from other nations? Explain the following military terms:—

Prætorium, principia, lituus, primus pilus, exauctoratio, in procinctu, sub vexillo esse, in ordinem cogi, evocati, sacramento dicere, vineas agere, agmen quadratum.

TRANSLATION FROM GREEK.

REV. L. CAMPBELL,

Friday, April 8th. 3 P.M. to 6 P.M.

Translate:—

Ὣς ἄρα φωνήσασα θεὰ κατὰ τεύχε' ἔθηκεν
Πρόσθεν Ἀχιλλῆος· τὰ δ' ἀνέβραχε δαίδαλα πάντα.
Μυρμιδόνας δ' ἄρα πάντας ἔλε τρόμος, οὐδέ τις ἔτλη
Ἄντην εἰσιδέειν, ἀλλ' ἔτρεσαν. Αὐτὰρ Ἀχιλλεὺς
Ὡς εἶδ', ὥς μιν μᾶλλον ἔδυ χόλος, ἐν δέ οἱ ὄσσε
Δεινὸν ὑπὸ βλεφάρων ὡς εἰ σέλας ἐξεφάανθεν·
Τέρπετο δ' ἐν χείρεσσιν ἔχων θεοῦ ἀγλαὰ δῶρα.
Αὐτὰρ ἐπεὶ φρεσὶν ἦσι τετάρπετο δαίδαλα λεύσσων,
Αὐτίκα μητέρα ἣν ἔπεα πτερόεντα προσηύδα·
"Μῆτερ ἐμή, τὰ μὲν ὅπλα θεὸς πόρεν οἷ' ἐπιεικὲς
Ἔργ' ἔμεν ἀθανάτων, μηδὲ βροτὸν ἄνδρα τελέσσαι.
Νῦν δ' ἤτοι μὲν ἐγὼ θωρήξομαι· ἀλλὰ μάλ' αἰνῶς
Δείδω μή μοι τόφρα Μενοιτίου ἄλκιμον υἱὸν
Μυῖαι καδδῦσαι κατὰ χαλκοτύπους ὠτειλὰς
Εὐλὰς ἐγγείνωνται, ἀεικίσσωσι δὲ νεκρὸν
—Ἐκ δ' αἰὼν πέφαται —, κατὰ δὲ χρόα πάντα σαπήῃ."
Τὸν δ' ἠμείβετ' ἔπειτα θεὰ Θέτις ἀργυρόπεζα·
"Τέκνον, μή τοι ταῦτα μετὰ φρεσὶ σῇσι μελόντων.
Τῷ μὲν ἐγὼ πειρήσω ἀλαλκεῖν ἄγρια φῦλα,
Μυίας, αἵ ῥά τε φῶτας ἀρηϊφάτους κατέδουσιν·
Ἤν περ γὰρ κῆταί γε τελεσφόρον εἰς ἐνιαυτὸν,
Αἰεὶ τῷδ' ἔσται χρὼς ἔμπεδος, ἢ καὶ ἀρείων.

Homer.

Ἐχρᾶτο δὲ καταστάσει πρηγμάτων τοιῇδε· τὸ μὲν ὄρθριον μέχρι ὅτου πληθώρης ἀγορῆς προθύμως ἔπρησσε τὰ προσφερόμενα πρήγματα, τὸ δὲ ἀπὸ τούτου ἔπινέ τε καὶ κατέσκωπτε τοὺς συμπότας καὶ ἦν μάταιός τε καὶ παιγνιήμων. ἀχθεσθέντες δὲ τούτοισι οἱ φίλοι αὐτοῦ ἐνουθέτεον αὐτὸν τοιάδε λέγοντες· Ὦ βασιλεῦ, οὐκ ὀρθῶς σεωυτοῦ προέστηκας, ἐς τὸ ἄγαν φαῦλον προάγων σεωυτόν· σὲ γὰρ χρῆν ἐν θρόνῳ σεμνῷ σεμνὸν θωκέοντα δι' ἡμέρης πρήσσειν τὰ πρήγματα, καὶ οὕτω Αἰγύπτιοί τ' ἂν ἐπιστέατο ὡς ὑπ' ἀνδρὸς μεγάλου ἄρχονται, καὶ ἄμεινον σὺ ἂν ἤκουες· νῦν δὲ ποιέεις οὐδαμῶς βασιλικά. Ὁ δ' ἀμείβετο τοισίδε αὐτούς· Τὰ τόξα οἱ κεκτημένοι, ἐπεὰν μὲν δέωνται χρᾶσθαι, ἐντανύουσι, ἐπεὰν δὲ χρήσωνται, ἐκλύουσι· εἰ γὰρ δὴ τὸν πάντα χρόνον ἐντεταμένα εἴη, ἐκραγείη ἄν, ὥστε ἐς τὸ δέον οὐκ ἂν ἔχοιεν αὐτοῖσι χρᾶσθαι. οὕτω δὴ καὶ ἀνθρώπου κατάστασις· εἰ ἐθέλοι κατεσπουδάσθαι αἰεὶ μηδὲ ἐς παιγνίην τὸ μέρος ἑωυτὸν ἀνιέναι, λάθοι ἂν ἤτοι μανεὶς ἢ ὄγε ἀπόπληκτος γενόμενος. τὰ ἐγὼ ἐπιστάμενος μέρος ἑκατέρῳ νέμω. Ταῦτα μὲν τοὺς φίλους ἀμείψατο.

Herodotus.

ΦΙΛΟΚΤΗΤΗΣ.

τοιοῦτος ἦσθα τοῖς λόγοισι χὤτε μου
τὰ τόξ' ἔκλεπτες, πιστὸς, ἀτηρὸς λάθρα.

ΝΕΟΠΤΟΛΕΜΟΣ.

ἀλλ' ου τι μὴν νῦν· βούλομαι δέ σου κλύειν,
πότερα δέδοκταί σοι μένοντι καρτερεῖν,
ἢ πλεῖν μεθ' ἡμῶν.

ΦΙ. παῦε, μὴ λέξῃς πέρα.
μάτην γὰρ ἂν εἴπῃς γε πάντ' εἰρήσεται.

ΝΕ. οὕτω δέδοκται; **ΦΙ.** καὶ πέρα γ' ἴσθ' ἢ λέγω.

ΝΕ. ἀλλ' ἤθελον μὲν ἄν σε πεισθῆναι λόγοις
ἐμοῖσιν· εἰ δὲ μή τι πρὸς καιρὸν λέγων
κυρῶ, πέπαυμαι.

Open Competition, 1870.

ΦΙ. . . . . πάντα γὰρ φράσεις μάτην,
οὐ γάρ ποτ' εὔνουν τὴν ἐμὴν κτήσει φρένα,
ὅστις γ' ἐμοῦ δόλοισι τὸν βίον λαβὼν
ἀπεστέρηκας, κἄτα νουθετεῖς ἐμὲ
ἐλθών, ἀρίστου πατρὸς αἴσχιστος γεγώς.
ὄλοισθ', Ἀτρεῖδαι μὲν μάλιστ', ἔπειτα δὲ
ὁ Λαρτίου παῖς, καὶ σύ.

ΝΕ. . . . . μὴ 'πεύξῃ πέρα·
δέχου δὲ χειρὸς ἐξ ἐμῆς βέλη τάδε.

ΦΙ πῶς εἶπας; ἆρα δεύτερον δολούμεθα;

Sophocles.

Χρόνον μὲν οὖν τινα ὀλίγον οὕτω πρὸς ἀλλήλους ἠκροβολίσαντο· τῶν δὲ Λακεδαιμονίων οὐκέτι ὀξέως ἐπεκθεῖν ἢ προσπίπτοιεν δυναμένων, γνόντες αὐτοὺς οἱ ψιλοὶ βραδυτέρους ἤδη ὄντας τῷ ἀμύνασθαι, καὶ αὐτοὶ τῇ τε ὄψει τοῦ θαρσεῖν τὸ πλεῖστον εἰληφότες πολλαπλάσιοι φαινόμενοι, καὶ ξυνειθισμένοι μᾶλλον μηκέτι δεινοὺς αὐτοὺς ὁμοίως σφίσι φαίνεσθαι, ὅτι οὐκ εὐθὺς ἄξια τῆς προσδοκίας ἐπεπόνθεσαν, ὥσπερ ὅτε πρῶτον ἀπέβαινον τῇ γνώμῃ δεδουλωμένοι ὡς ἐπὶ Λακεδαιμονίους, καταφρονήσαντες καὶ ἐμβοήσαντες ἀθρόοι ὥρμησαν ἐπ' αὐτούς, καὶ ἔβαλλον λίθοις τε καὶ τοξεύμασι καὶ ἀκοντίοις, ὡς ἕκαστός τι πρόχειρον εἶχε. γενομένης δὲ τῆς βοῆς ἅμα τῇ ἐπιδρομῇ ἔκπληξίς τε ἐνέπεσεν ἀνθρώποις ἀήθεσι τοιαύτης μάχης, καὶ ὁ κονιορτὸς τῆς ὕλης νεωστὶ κεκαυμένης ἐχώρει πολὺς ἄνω, ἄπορόν τε ἦν ἰδεῖν τὸ πρὸ αὐτοῦ ὑπὸ τῶν τοξευμάτων καὶ λίθων ἀπὸ πολλῶν ἀνθρώπων μετὰ τοῦ κονιορτοῦ ἅμα φερομένων. τό τε ἔργον ἐνταῦθα χαλεπὸν τοῖς Λακεδαιμονίοις καθίστατο. οὔτε γὰρ οἱ πῖλοι ἔστεγον τὰ τοξεύματα, δοράτιά τε ἐναποκέκλαστο βαλλομένων, εἶχόν τε οὐδὲν σφίσιν αὐτοῖς χρήσασθαι ἀποκεκλῃμένοι μὲν τῇ ὄψει τοῦ προορᾶν, ὑπὸ δὲ τῆς μείζονος βοῆς τῶν πολεμίων τὰ ἐν αὐτοῖς παραγγελλόμενα οὐκ ἐσακούοντες, κινδύνου τε πανταχόθεν περιεστῶτος καὶ οὐκ ἔχοντες ἐλπίδα καθ' ὅτι χρὴ ἀμυνομένους σωθῆναι.

Thucydides.

Ἄλλοι μὲν οὖν κατ' ἄλλους τόπους κληρουχήσαντες θεῶν ἐκεῖνα ἐκόσμουν, Ἥφαιστος δὲ κοινὴν καὶ Ἀθηνᾶ φύσιν ἔχοντες, ἅμα μὲν ἀδελφὴν ἐκ ταὐτοῦ πατρός, ἅμα δὲ φιλοσοφίᾳ φιλοτεχνίᾳ τε ἐπὶ τὰ αὐτὰ ἐλθόντες, οὕτω μίαν ἄμφω λῆξιν τήνδε τὴν χώραν εἰλήχατον ὡς οἰκείαν καὶ πρόσφορον ἀρετῇ καὶ φρονήσει πεφυκυῖαν, ἄνδρας δὲ ἀγαθοὺς ἐμποιήσαντες αὐτόχθονας ἐπὶ νοῦν ἔθεσαν τὴν τῆς πολιτείας τάξιν· ὧν τὰ μὲν ὀνόματα σέσωται, τὰ δὲ ἔργα διὰ τὰς τῶν παραλαμβανόντων φθορὰς καὶ τὰ μήκη τῶν χρόνων ἠφανίσθη. τὸ γὰρ περιλειπόμενον ἀεὶ γένος, ὥσπερ καὶ πρόσθεν ἐρρήθη, κατελείπετο ὄρειον καὶ ἀγράμματον, τῶν ἐν τῇ χώρᾳ δυναστῶν τὰ ὀνόματα ἀκηκοὸς μόνον καὶ βραχέα πρὸς αὐτοῖς τῶν ἔργων. τὰ μὲν οὖν ὀνόματα τοῖς ἐκγόνοις ἐτίθεντο ἀγαπῶντες, τὰς δὲ ἀρετὰς καὶ τοὺς νόμους τῶν ἔμπροσθεν οὐκ εἰδότες, εἰ μὴ σκοτεινὰς περὶ ἑκάστων τινὰς ἀκοάς, ἐν ἀπορίᾳ δὲ τῶν ἀναγκαίων ἐπὶ πολλὰς γενεὰς ὄντες καὶ αὐτοὶ καὶ παῖδες, πρὸς οἷς ἠπόρουν τὸν νοῦν ἔχοντες, τούτων πέρι καὶ τοὺς λόγους ποιούμενοι, τῶν ἐν τοῖς πρόσθεν καὶ πάλαι ποτὲ γεγονότων ἠμέλουν.

Plato.

TRANSLATION INTO GREEK.

Rev. Dr. Kennedy.

Saturday, April 9th. 10 A.M. to 1 P.M.

Translate into Greek prose:

1. Demetrius of Phalerum said, that the young ought in the house to respect their parents; in the streets, those who meet them; in deserts, themselves.
2. There was a law of Solon—"Let one who has devoured his heritage "be disfranchised; and let the idle be accountable to any who "likes to indict him."
3. Orpheus, when his wife Eurydike died, bitten by a serpent, went down to Orcus, wishing to recover her, and would fain induce Pluto to send her up. He promised he would, if Orpheus on the road would not turn round before he got to his house. But he, being incredulous, turned round and looked at his wife; and she went her way back.
4. If some deity were to come to me and say—"Crato, when you are "dead, you shall be once again, and be whatever you will—dog, "sheep, goat, man, horse; for you must live twice, so it is fated; "choose then what you like." I think I should instantly say—"Make me anything except man; for this is the only animal "that has good and ill fortune unjustly."

OPEN COMPETITION, 1870.

5. For what purpose, with what intent, do we read? We read not for the sake of reading, but we read to the end that we may think. Reading is valuable only as it may supply to us the materials which the mind itself elaborates. As it is not the largest quantity of any kind of food, taken into the stomach, that conduces to health, but such a quantity of such a kind as can be best digested; so it is not the greatest complement of any kind of information that improves the mind, but such a quantity of such a kind as determines the intellect to most vigorous energy. The only profitable reading is that in which we are compelled to think, and think intensely; whereas that reading which serves only to dissipate and divert our thought, is either positively hurtful, or useful only as an occasional relaxation from severe exertion. *Sir W. Hamilton.*

Translate one of the following passages:—

6. *Into Greek Heroic Verse.*

They that go down to the sea in ships
And do business in great waters,
These men see the works of the Lord,
And his wonders in the deep;
For at his word the stormy wind ariseth,
Which lifteth up the waves thereof.
They are carried up to the heaven, and down again to the deep;
Their soul melteth away because of their trouble.
They reel to and fro and stagger like a drunken man.
And are at their wits end.
So when they cry unto the Lord in their trouble,
He delivereth them out of their distress.
For he maketh the storm to cease,
So that the waves thereof are still.
Then are they glad because they are at rest,
And so he bringeth them to the haven where they would be.

Psalm 107.

7. *Or into Greek Tragic Iambic Verse.*

I have, thou gallant Trojan, seen thee oft,
Labouring for Destiny, make cruel way
Through ranks of Greekish youth: and I have seen thee,
As hot as Perseus, spur thy Phrygian steed,
Despising many forfeits and subduements,
When thou has hung thy advanced sword i' the air,
Nor letting it decline on the declined;
That I have said to some my standers-by,
Lo, Jupiter is yonder, dealing life!
And I have seen thee pause, and take thy breath,
When that a ring of Greeks have hemm'd thee in,
Like an Olympian wrestling.

Shakespeare.

OPEN COMPETITION 1870.

LANGUAGE, LITERATURE, AND HISTORY OF GREECE.

Rev. Dr. KENNEDY.

Saturday, April 9th. 3 P.M. to 6 P.M.

N.B.—*Of each pair of questions marked* (*a*) *and* (*b*) *Candidates may choose either, but not answer both.*

I. (*a*) Distinguish the Hellenes and the Phœnikes ethnologically. What points of contact between them appear before the time of Herodotus:—

(1.) from legend and poetry; (2.) from facts of geography, languages, and religion?

or (*b*) *Græcia: Græci: Graii.* Can any probable reason be assigned for the adoption of these names for Hellas and its people by the Romans? Mention and account for any other instances in history where a nation has obtained among neighbours a name fundamentally different from that which its own people use. How was Greece politically distributed under Roman dominion?

II (*a*) State, with reference to Thucydides, the antecedent and existing causes of the greatness of Athens at the commencement of the Peloponnesian war. By what rules of policy would Athenian power have been best maintained? How far were these rules transgressed in the Sicilian expedition?

(*b*) Describe the site of Corinth, give its ancient name, and state what causes made it memorable in Greece, and why it never exercised a leading influence, except in the final struggle for freedom. What were its chief colonies? how were they, and how was Corinth itself, interested in the Peloponnesian war? What interest did Corinth exhibit in the affairs of one of those colonies at a later time? Explain (Aristoph. Plutus, 173.) τὸ δ' ἐν Κορίνθῳ ξενικὸν οὐχ οὗτος τρέφει; Cicero says—(p. L. Manil. 5.) "Corinthum patres vestri totius Græciæ lumen exstinctum esse voluerunt." When and how? What then was the Corinth in which St. Paul resided? Account for the words "totius Græciæ lumen."

III. Explain the word Παραπρεσβεία, and illustrate it by citing similar compounds with παρά. Whose are the speeches extant on this subject? In what year were they delivered, in what kind of trial, and with what result? State briefly with dates, the series of events narrated in the speech for the prosecution, the gist of the charges, and the tenour of the defendant's answer? What other prosecution was complicated with this, and what delay did it cause?

IV. Niebuhr says—"Alexander undertook the Asiatic expedition as a true adventurer." Test the justice of this censure by considering (1) Alexander's position at Philip's death, (2) the condition of the Persian empire and its antecedent relations to Greece, (3) Alexander's conduct of Grecian affairs, (4) his general management of the war with Persia from the passage of the Hellespont to the death of Darius.

V. Describe the life and character of any *one* of the following persons:—

Dion,
Lycurgus the orator,
Philopœmen.

OPEN COMPETITION, 1870.

VI. (*a*) Δῖνος βασιλεύει τὸν Δί' ἐξελήλακώς. Aristoph. Nub. 1373. What doctrine does this verse ridicule? Who was its propounder? Give some account of him and his philosophic system. By what school was it adopted and systematized at a later time? In what extant work is it expounded?

or (*b*) Who were the elder Stoics? Whence do we derive our knowledge of them and their doctrines? Compare their theories of virtue and the end of existence with those of Aristotle. What writings of the later Stoics are extant?

VII. (*a*) Characterise Æschylus and Euripides with reference to the criticism of Aristophanes, and from your own point of view. What rank do you assign to Sophocles, as poet, dramatist, and moralist? Cite those tragedies of each author which you regard as most characteristic of his genius.

or (*b*) Give some account of Pindar's career as a poet; and describe, with reference to any complete specimen, his method of constructing an Epinician ode.

VIII. Write down the Greek Alphabet as you suppose it to have stood in the age of the earliest Homeric poems. How far was their rhythm confined by laws of quantity? What light does Comparative Philology throw upon the derivation or formation of the following words?—

ἀείδω	εἶπον	μέσσος
βαίνω	ἐλαχύς	νεβρός
βαρύς	ἐσπόμην	πέντε
βένθος	κύων	πέπτω
βροτός	μείζων	ὖπνος
ἔερση	μέμβλωκα	φέγγος

Trace each from what you believe to be its primitive root.

PURE MATHEMATICS.

REV. R. TOWNSEND.

Monday, 11th April. 10 A.M. to 1 P.M.

[N.B.—*In answering the questions in Geometry, as in the other subjects, Candidates are at liberty to employ any abbreviations by which time may be saved.*]

1. Prove, by any method, that two triangles whose sides are parallel, two by two, are equiangular.
2. Prove, by any method, that two triangles whose angles are equal, two by two, are similar.
3. Given two finite right lines; apply to either a rectangle equal to the square of the other.
4. Given two finite right lines; construct a square equal to the rectangle under the two.
5. From a given point within a given circle, draw the longest and shortest possible lines to the circle.
6. Through a given point within a given circle, draw the longest and shortest possible chords of the circle.
7. Assuming the ordinary approximate value of π, calculate, to the nearest integer, the number of seconds in the angular unit of circular measure.

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8. Prove, by any method, the formulæ for sin (A + B) and for cos (A + B) in terms of the sines and cosines of A and B.
9. Assuming the preceding formula for sin (A + B), prove those for sin A and for cos A in terms of sin 2 A.
10. Given, of a plane triangle, a side c, and the two adjacent angles A and B; determine, by trigonometry, the remaining sides a and b.
11. Given, of a plane triangle, an angle C, and the two adjacent sides a and b; determine, by trigonometry, the remaining angles A and B.
12. Express, in each of the preceding cases, the length of the perpendicular p from the vetex C upon the side c, in terms of the quantities given in each case.
13. Given that, $\cos x + \cos y = a$, $\sin x + \sin y = b$; find the values of x and y in terms of a and b.
14. Given that $(a \pm b\sqrt{-1})^{\frac{1}{3}} = x \pm y\sqrt{-1}$; find the values of x and y in terms of a and b.
15. State and prove the ordinary approximate rule for the abridged calculation of the simple interest of a given sum, at a given rate, for a given number of days.
16. Apply the ordinary process for the extraction of the square root to determine the series for $(1 + x)^{\frac{1}{2}}$ in ascending powers of x.
17. Expand $(1 - x)^{-\frac{1}{2}}$, so as to exhibit the law of the successive coefficients, by the binomial theorem.
18. Investigate, by any method, the series for $\log_e (1 + x)$ in ascending powers of x.
19. If n be any large number, and δ any small increase or diminution of it, prove the approximate formula—

$$\log_a (n \pm \delta) = \log_a (n) \pm \frac{1}{\log_e (a)} \cdot \frac{\delta}{n}.$$

20. Find x, y, z from the equations

$$x^2 - yz = a,\ y^2 - zx = b,\ z^2 - xy = c.$$

PURE MATHEMATICS.

REV. B. PRICE.

Monday, April 11th. 3 P.M. to 6 P.M.

1. Define a root of an equation, and state and prove the relations which exist between the roots and the coefficients of an equation. As these relations are n in number, why do they not enable you to solve an equation?
2. Solve the following equations:—

   (1.) $x^3 - 22x - 84 = 0$
   (2.) $x^4 - 6x^3 + 9x^2 - 8x + 3 = 0$

3. Prove De Moivre's theorem for positive integral indices; and hence express (1) $\cos n\theta$ in terms of $\cos\theta$ and its powers; and (2) $(\cos\theta)^n$ in terms of cosines of the multiple arcs.
4. Enunciate Napier's rules for the solution of right-angled spherical triangles. Prove that $\cos c = \cos a \cos b$, and deduce the corresponding theorem in a plane triangle.
5. In how many ways can the surface of a sphere be divided into equal and similar regular spherical polygons?

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6. Prove that in a parabola SP = ST = SG; and that in an ellipse SY × HZ = BC².
7. Prove that $Ax + By + C = 0$ is the equation to a straight line; explain the geometrical meaning of the constants.

   Also find the equation to a straight line passing through a given point, and prove that generally through a given point two straight lines can be drawn, which with the co-ordinate axes contain a given area.
8. Find the equation to a circle when the origin is in the circumference.

   A circle is described passing through the vertex and middle point of the base of an isosceles triangle; prove that the sum of the parts of the sides intercepted by the circle is the same whatever is the radius of the circle.
9. Prove by means of the equation of the parabola the theorem given in the former part of question 6.
10. Define conjugate diameters of a conic. Given the co-ordinates of the extremity of one diameter of an ellipse, find those of the extremity of the conjugate diameter.
11. Explain the process of differentiation, illustrating it by the construction of a tangent to a curve and by the change of volume of a cube whose side $= x$, when x varies.
12. Differentiate (1) $y = a^x$, (2) $y = (a^2 + x^2) \tan^{-1} \frac{x}{a}$, (3) $u = \log_y x$, where y and x are independent variables.
13. Expand by Maclaurin's theorem $e^{ax} \cos nx$, and give the r^{th} term of the series.
14. Trace the curve whose equation is

$$y^2 = x^2 \frac{(x-a)(x-2a)}{(x+a)(x+2a)},$$

    and indicate its singular points.
15. Integrate the following

$$(1) \frac{dx}{\sqrt{a^2+x^2}}; \quad (2) \frac{dx}{x^2\sqrt{x^2-a^2}}; \quad (3) e^{ax} x^n \, dx.$$

16. Prove that the area of an ellipse $= \pi ab$; and that the area of the cardioide, whose equation is $r = a(1 + \cos\theta)$, is $\frac{3\pi a^2}{2}$.

Candidates are at liberty to substitute any of the following questions for any of those which have preceded.

A. $\alpha = 0$, $\beta = 0$, $\gamma = 0$ being the equations to three lines forming a triangle of reference: draw in reference to it the curves $\alpha\beta - \gamma^2 = 0$, and $l\alpha^2 + m\beta^2 + n\gamma^2 = 0$.

B. Prove Lagrange's theorem.

C. Define a cylindrical surface: find the general differential equation, and integrate it.

D. Find the cyclic planes of the ellipsoid

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1.$$

E. Find the curves in which the radius of curvature is equal to twice the normal.

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MIXED MATHEMATICS.

REV. R. TOWNSEND.

Tuesday, April 12th. 10 A.M. to 1 P.M.

1. A force R is resolved into two others P and Q, in directions making angles α and β with its own, respectively; required the values of P and Q.
2. Two forces P and Q intersect at an angle φ; required the values of their resultant R, and of the sines of the angles α and β it makes with P and Q.
3. State the mechanical condition for equilibrium in the lever; and deduce from it the mathematical condition for any directions of the power and resistance.
4. State the mechanical condition for equilibrium on the inclined plane; and deduce from it the mathematical condition for any direction of the power and inclination of the plane.
5. Apply the principle of "the equality of the work applied to the work produced" to determine the ratio of the power to the resistance in the screw.
6. Apply the same principle, or, if you prefer it, that of "the equal transmission of pressure," to determine the ratio of the power to the resistance in the hydrostatic press.
7. For a cubical vessel filled with water, prove, by any method, that the entire pressure on any of the four sides is half the entire pressure on the base.
8. For a body floating freely in water, prove, by any method, that the entire weight of the displaced fluid is equal to the entire weight of the body.
9. Explain the principle and action of the forcing pump; and describe the contrivance for producing a continuous flow of water, notwithstanding the intermittent action of the piston.
10. In the motion of a body falling freely from rest under the action of gravity, prove that the number of feet in the height fallen through is equal to the square of the number of quarter seconds in the time of falling.
11. In the motion of a body falling down an inclined plane under the action of gravity, prove that the velocity acquired in falling through the length is equal to that acquired in falling freely through the height of the plane.
12. A moving force F, acting for a time T upon the mass of a weight W, gets up in it a velocity V; required the relation connecting the four quantities F, T, W, V.
13. A mass of the weight W, moving with a velocity V, comes under the action of a retarding force F; required the space S through which it will run before being brought to rest, and the time T it will take to run through it.
14. Describe any method with which you are acquainted for determining, by astronomical observation, the meridian of a given place.
15. Describe any method with which you are acquainted for determining, by astronomical observation, the latitude of a given place.
16. The problem "on a given day at a given place to find the time of sunrise or sunset" may be solved by aid of a celestial globe; explain this by a figure.

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17. The terms "day" and "year" are each employed by astronomers in three different senses; explain these, with the causes of difference in each case.
18. Investigate, by any method, the relation connecting the two conjugate focal distances, in nearly perpendicular reflexion at the surface of a spherical mirror.
19. Investigate, by any method, the relation connecting the two conjugate focal distances, in nearly perpendicular refraction through both surfaces of a thin lens.
20. In a telescope, consisting of two convex lenses set at opposite ends of a straight tube, prove, by any method, the ordinary formula for the magnifying power.

MIXED MATHEMATICS.

E. J. ROUTH, ESQ.

Tuesday, April 12th. 3 P.M. to 6 P.M.

1. Define a couple, and explain how a couple may be represented by a straight line.

   Investigate the rule to find the magnitude and position of the resultant of two given couples whose planes are inclined at a given angle.
2. Show how to find the co-ordinates of the centre of gravity of any plane area, and apply your method to find those of the centre of gravity of the area bounded by the two parabolas $y^2 = 4ax$, $x^2 = 4by$.
3. A uniform heavy chain is suspended from two fixed points A and B, show that the difference of the tensions at any two points is proportional to the difference of the altitudes of those points above any horizontal plane.

   If A and B are in the same horizontal line, and the tangent at A make an angle 45° with the horizon, find the depth of the lowest point of the chain below AB in terms of the length of the chain.
4. Prove that the tangential and normal accelerations of a particle are respectively $\frac{dv}{dt}$ and $\frac{v^2}{\rho}$ where v is the velocity of the particle and ρ the radius of curvature of the curve.

   If the only force acting on the particle be a resistance equal to kv^n, determine for what values of n the particle will come to rest is a finite time.
5. A particle is acted on by a central force varying inversely as the square of the distance. Show that it will describe a conic section with the centre of force in the focus.

   A series of particles forming a ring of meteors describe the same ellipse with the sun in the focus, show that the angular distance as seen from the sun between any the same two consecutive particles varies inversely as the square of their distance from the sun.
6. A particle is constrained to move on a curve under the action of a central force, find the velocity and pressure on the curve.

   If the curve be the equiangular spiral and the centre of force be situated in the vertex and attract inversely as the cube of the distance, show that the pressure varies inversely as the distance of the particle from the vertex.

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7. A quantity of water is placed in a vessel and the whole rotates with uniform angular velocity about a vertical axis. Show that the free surface is a paraboloid, and find its latus rectum.

A hollow sphere is just filled with water and rotates about the vertical diameter with uniform angular velocity. Compare the whole pressure on the internal surface with the weight of the fluid.

8. Investigate the equation—

$$\frac{dp}{\rho} = \mathrm{X}dx + \mathrm{Y}dy + \mathrm{Z}dz.$$

Show that if the forces tend to fixed centres and the fluid be heterogeneous, the surfaces of equal pressure will coincide with the surfaces of equal density.

9. Define the steady motion of a fluid.

A vessel is kept constantly full and has a very small hole in its base, through which the fluid issues at a uniform rate. Find the velocity of efflux.

10. Show that the focal length F of a lens equivalent to a system of lenses of focal lengths $f_1 f_2$ separated by an interval a is given by

$$\frac{1}{\mathrm{F}} = \frac{1}{f_1} + \frac{1}{f_2} + \frac{a}{f_1 f_2}.$$

11. A small pencil of light passes continually through two thin lenses in contact. Investigate the relation between the focal lengths when the combination is achromatic.

If the dispersive powers of flint and crown glass be in the ratio 10 to 7, and the focal length of the object glass of an astronomical telescope be 10 feet; find the focal length of each lens.

12. Give a diagram of the compound refracting microscope, and trace the course of a pencil of rays through it.

13. Define the principal axes of a body at any point.

Find the principal axes of a quadrant of an ellipse at the centre.

14. Show that the refraction of a star not far from the zenith varies as the tangent of its zenith distance.

How would you test the accuracy of this result by observation.

Candidates are at liberty to substitute any of the following questions for any of the preceding.

A. Find the attraction in direction and magnitude of a straight line on any point, the law of attraction being the law of nature.

Two equal straight lines forming the opposite sides of a square attract each other. Find the force necessary to hold them apart.

B. Enunciate and prove the principle of virtual velocities.

Two unequal rods AC, BC, hinged at C, rest in a vertical plane with their extremities on a smooth horizontal plane connected by a string AB. Show that the tension of the string is $\mathrm{W}\frac{\cos \mathrm{A} \cos \mathrm{B}}{\sin \mathrm{C}}$ where W is the half sum of the two weights, and A, B, C, are the angles of the triangle.

C. Enunciate D'Alembert's principle.

Show that if a body be moving about a fixed axis with an angular velocity w, the moment of the effective forces about the

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axis is $Mk\frac{dw}{dt}$ where Mk^2 is the moment of inertia of the body about the axis.

D. Prove the principal of vis viva.

A heavy sphere rolls down a perfectly rough circular arc starting from rest at any point. Find the angular velocity of the sphere when it passes the lowest point of the arc.

E. What is meant by the disturbing forces of the sun on the moon ?

Investigate the equation—

$$\frac{d^2a}{d\theta^2} + u = \frac{\frac{P}{h^2u^2} - \frac{T}{h^2u^3}\frac{du}{d\theta}}{1 + 2\sqrt{\frac{T}{h^2u^3}}d\theta}$$

FRENCH LANGUAGE, &c.

M. DUPONT.

Wednesday, March 13th. 10 A.M. to 1 P.M.

Translate into English :—

Pour être approuvée une cause juste n'a pas besoin de réussir, et c'est en vain qu'on veut rendre la justice responsable des orages que soulèvent les résistances qu'on lui oppose. Ce que voulaient les Bailly et les La Fayette, et la France avec eux, j'entends l'équité dans la loi, et des garanties pour la loi, est une dette toujours exigible. L'instance ne cesse pas d'être ouverte soit pour y arriver, soit pour y revenir. Ces hommes de bien avaient le droit de leur côté, ils tendaient à un but légitime par des voies honorables. Ils restent purs devant l'histoire qui les juge. Ni Bailly ni La Fayette, ni ceux qui les suivaient, n'ont fait naître le fatal enchainement des circonstances plus fortes que la volonté des citoyens dévoués au bien public ; ils n'avaient ni conseillé la fuite du roi, ni désiré les humiliations de son retour, ni fourni de prétextes à l'émeute qui suivit cette faute et ce malheur. Ils la réprimèrent en y laissant leur force, et cette rigueur que d'autres avaient rendue nécessaire, les perdit tous deux sans sauver la royauté qui ne pouvait être sauvée. Ainsi furent frappées d'impuissance, et la sagesse des idées, et la loyauté courageuse des sentiments. Bailly honora par sa mort les lettres qu'il avait cultivées avec succès, et la liberté qu'il avait aimée jusqu'à l'abnégation. Nous n'avons pas le courage de redire toutes les épreuves de sa longue agonie. On connait sa fin : "Tu "trembles, Bailly, lui dit un de ses bourreaux.—Je tremble, mon ami, "mais c'est de froid:" à cette heure suprême l'homme juste fut un martyr et un héros.

GÉRUZEZ, *Histoire de la Littérature Française.*

Nous sommes à Paris depuis un mois, et nous avons toujours été dans un mouvement continuel. Il faut bien des affaires avant qu'on soit logé, qu'on ait trouvé les gens à qui on est adressé, et qu'on se soit pourvu des choses nécessaires qui manquent toutes à la fois. Paris est aussi grand qu'Ispahan, les maisons y sont si hautes, qu'on jurerait qu'elles sont habitées par des astrologues. Tu juges bien qu'une ville bâtie en l'air, qui a six ou sept maisons les unes sur les autres, est extrêmement peuplée ; et que quand tout le monde est descendu dans la rue, il s'y fait

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un bel embarras. Tu ne le croirais pas peut-être, depuis un mois que je suis ici, je n'y ai encore vu marcher personne. Il n'y a point de gens au monde qui tirent mieux parti de leur machine que les Français ; ils courent, ils volent : les voitures lentes d'Asie, le pas réglé de nos chameaux, les feraient tomber en syncope. Pour moi qui ne suis pas fait à ce train, et qui vais souvent à pied sans changer d'allure, j'enrage quelquefois comme un infidèle : car encore passe qu'on m'éclabousse depuis les pieds jusqu'à la tête ; mais je ne puis pardonner les coups de coude que je reçois régulièrement et périodiquement. Un homme qui vient après moi, et qui me passe, me fait faire un demi-tour ; et un autre qui me croise de l'autre côté me remet soudain où le premier m'avait pris ; et je n'ai pas fait cent pas, que je suis plus brisé que si j'avais fait dix lieues.

MONTESQUIEU.

Translate into French :—

I can more readily admire the liberal spirit and integrity, than the sound judgment of any man, who prefers a republican form of government, in his or any other empire of equal extent, to a monarchy so qualified and limited as ours. I am convinced, that neither is it in theory the wisest system of government, nor practicable in this country. Yet, though I hope the English constitution will for ever preserve its original monarchical form, I would have the manners of the people purely and strictly republican. I do not mean the licentious spirit of anarchy and riot. I mean a general attachment to the common weal, distinct from any partial attachment to persons and families ; an implicit submission to the laws only, and an affection to the magistrate proportioned to the integrity and wisdom with which he distributes justice to his people, and administers their affairs. The present habit of our political body appears to me the very reverse of what it ought to be. The form of the constitution leans rather more than enough to the popular branch ; while, in effect, the manners of the people, of those at least who are likely to take a lead in the country, incline too generally to a dependence upon the Crown.

JUNIUS.

The hollow promises of the witches had filled Macbeth with false confidence, and he remembered the sayings of the spirits, that he was never to be vanquished till Birnam Wood would come to Dunsinane, which he thought could never be. So he shut himself up in his castle, whose impregnable strength was such as defied a siege ; here he sullenly waited the approach of Malcolm. When upon a day, there came a messenger to him, pale and shaking with fear, almost unable to report that which he had seen, for he averred that as he stood upon his watch on the hill, he looked towards Birnam, and to his thinking the wood began to move! "Liar and slave," cried Macbeth ; "if thou speakest "false, thou shalt hang upon the next tree, till famine ends thee. If "thy tale be true, I care not if thou dost as much by me." For Macbeth now began to faint in resolution, and to doubt the equivocal speeches of the spirits. He was not to fear till Birnam Wood should come to Dunsinane, and now a wood did move! "However," said he, "if this "which he avouches be true let us arm and out. There is no flying "hence, nor staying here. I begin to be weary of the sun, and wish "my life at an end." With this desperate speech he sallied forth upon the besiegers, who had now come up to the castle.

CHARLES LAMB.

OPEN COMPETITION, 1870.

FRENCH LANGUAGE, &c.

PROFESSOR KARCHER.

Wednesday, April 13th. 3 P.M. to 6 P.M.

N.B.—*The Questions are to be answered in English.*

Grammar.

1. Parse and translate the following verbs: *il lit, il lie ; il sert, il serre ; il décrit, il décrie ; il comparaît, il comparait ; il recouvrera, il recouvrira ; il peigna, il peignit ; il a reparti, il est reparti, il a réparti.*
2. Give a list of the feminine nouns before which the adjective *grand* remains in the masculine. State why this apparent irregularity has been maintained, and show in what special sense it is used.
3. How do you translate into French *few* and *a few* followed by a plural noun? Take for illustration: "(*a*) few men can do that. (*b*) A few men can do that."
4. Point out when the English adjective *original* is, according to its particular meaning, to be translated into French by *original*, and when by *originel*. Answer the same question in reference to the translation of *partial* by *partial* or *partiel*, of *secular* by *séculaire* or *séculier*, of *native* by *natif* or *natal*, of *offensive* by *offensif* or *offensant*. Give examples.
5. *Il est inutile que je vous parle.* State if, in this sentence, *parle* is the indicative or the subjunctive mood, and give a grammatical reason for your opinion. Explain the difference which the mood employed produces in the meaning of the following sentences: "Je cherche un homme que *j'ai* vu. Je cherche un homme que " *j'aie* vu.—Je vais demeurer dans une ville qui me *plait.* Je " vais demeurer dans une ville qui me *plaise.*—Il prétend que " tout le monde lui *obéit.* Il prétend que tout le monde lui " *obéisse.*—J'entends que vous lui *parlez.* J'entends que vous " lui *parliez.*"
6. Explain why some of the following participles are inflected while the others remain unchanged: "Cette femme s'est *servie* la pre- " mière ; elle s'est aussi *servi* les meilleurs morceaux.—Elles se " sont *fermé* toutes les portes. Toutes les portes se sont *fermées* " devant elles.—Ils nous ont *aidés* fort souvent. Ils nous ont " souvent *aidé* à soulever des poutres.—Ils se sont *donnés* à " l'ivresse. Ils se sont *donné* la main." Apply the rules on French participles by translating: "Can you recognize the " actors whom you saw playing on the stage? It is a fine " comedy ; did you ever see it played? They had accustomed " themselves to rise very early. How many letters have they " written to one another?"

History.

N.B.—*Four of these questions only are to be answered.*

1. Give a short account of the manner in which the *affranchissement des Communes* was brought about.
2. Narrate the steps by which France interfered in the Thirty Years' War.
3. Describe the part which the *parlement* of Paris took in the disturbance of *la Fronde.*

4. Write an account of the Russian campaign in 1812.
5. Relate the events which marked the beginning and the end of the reign of King *Louis-Philippe*.
6. Mention shortly the most important facts connected with each of the following names:—king *Clovis*, king *Dagobert*, *Etienne Marcel*, the chancellor *L'Hôpital*, *Louvois*, the Marshal *de Saxe*, *Sieyès*, *Barère*, General *Kleber*.

Literature.

N.B.—*Four of these Questions only are to be answered.*

1. Describe the great literary features of the *Renaissance*.
2. State some particulars concerning the Institution called *la Sorbonne*. Describe its chief features and trace its influence: 1. during the middle ages; 2. in the 19th century.
3. Give a list of the principal writers of *Mémoires*, and dwell more specially on those which refer to the age of Louis XIV.
4. Name the authors of the following poems; state at what epoch they were written and describe in a few words the subject treated in each: *la Chanson de Roland*, *le Brut d'Angleterre*, *le Chevalier au lion*, *le Lutrin*, *la Religion*, *Vert-Vert*, *la Henriade*, *l'Imagination*, *la Navigation*, *le Mérite des Femmes*, *Jocelyn*, *la Légende des Siècles*.
5. Give the names of the poets who composed the following tragedies or comedies: *Polyeucte*, *Ariane*, *Andromaque*, *Tartufe*, *le Joueur*, *Turcaret*, *Zaïre*, *la Métromanie*, *Tibère*, *les Templiers*, *Abufar*, *Louis XI.*, *Ruy Blas*, *l'Honneur et l'Argent*. Write a short analysis of *one* of these dramatic works.
6. *Chateaubriand*. Give a sketch of his life and his principal works, and account for the influence which he exercised on French literature.

Composition.

Write an essay in French on one of the following subjects.

1. Décrivez les différences que vous remarquez dans les institutions politiques et religieuses des peuples, selon qu'ils habitent le nord ou le midi.
2. Par quelles raisons peut-on justifier la conquête de pays et de peuplades sauvages par une nation civilisée?
3. L'Étude de la géographie.

Dictation:—

Je ne sais, Monsieur, si vous vous rappelez les paroles qu'hier vous avez laissées échapper; que vous saviez ce que vous êtes et ce que je suis. Il est de mon devoir, de vous apprendre, que vous ignorez l'un et l'autre. Croyez-vous, Monsieur, que vous valiez plus que moi? Quelques valets, sans doute, se seront empressés de vous le dire, et moi, je vous assure, que je suis plus que vous. Vous comprenez assez, qu'il n'est pas ici question des avantages de la naissance, quelque grands qu'ils puissent être. Vous regarderiez comme un insensé celui qui prétendrait se faire un mérite de ce que la pluie du ciel a fertilisé le ...onds qu'il possède, sans arroser celui de son voisin. Quelle que soit la vanité que vous tiriez de votre naissance, la supériorité que vous vous êtes arrogée n'a rien de réel et n'ajoute rien à votre mérite personnel.

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MORAL SCIENCE.

SIR ALEXANDER GRANT, BART.

Thursday, April 14th. 10 A.M. to 1 P.M.

1. What rules can you deduce from Logic for testing—
   (*a*) a given definition;
   (*b*) a given classification;
   (*c*) a given argument?
2. Explain, with instances, the terms—*Syncategorematic. Second Intention. Logical Whole. Modality. Connotation. Opposition. Coversio per Accidens. Illicit Process of the Minor.*
3. What is the logical nature of the argument called *Dilemma?* Give instances of it, and show what is meant by *retorting*, and what by *escaping from the horns of*, a dilemma.
4. Show the difference between *Metaphor* and *Analogy* in reasoning. State and examine Bishop Butler's arguments in favour of a Future Life.
5. "Besides thinking substances and ideas nothing either exists, or can exist." What is to be said for, and against, this position?
6. What is "Common Sense"?
7. State "the Law of Association," and mention some of its chief applications.
8. Collect from the first book of the *Novum Organum* Bacon's remarks on the ancient philosophers. Criticize those remarks.

MORAL SCIENCE.

PROFESSOR BAIN.

Thursday, April 14th. 3 P.M. to 6 P.M.

1. Define Emotion. Show the dependence of the Emotions on Sensation and on Intellect; and classify them.
2. Analyse Sympathy. State what it includes; and give its connexion with Tender Feeling.
3. Choose between the two following:—
   a. Give the characteristic features, and the various species, of Anger.
   b. Give any theories of the relation of Resentment to Conscience.
4. Explain the Beauty of Fitness or Utility.
5. Explain Motive, Responsibility, and Moral Habits.
6. Discuss any of the theories of Pleasure.
7. Choose between the two following:—
   a. State the various meanings of Law, and show their Ethical bearings.
   b. What is the place assigned to Human Happiness in those Ethical Systems that do not regard it as the primary end of morality?
8. Give an account of the opinions at present entertained on the points of Ethical theory that still divide the schools.

Open Competition, 1870.

NATURAL SCIENCE.

Geology and Mineralogy.

Professor Morris.

Monday, April 18th. 10 A.M. to 1 P.M.

Geology.

1. Upon what evidence is it inferred that considerable changes of climate took place in the later Tertiary period?
2. How are the successive seams of Coal and alternating strata in the Coal-measures accounted for?
3. In what kind of rocks are Caverns generally found, and how have they been formed?
4. Give the subdivisions of the Oolitic rocks, state their chief mineral characters, and name some of the characteristic fossils.
5. Explain the probable origin of the Wealden formation, and state the character of the organic remains found in it.
6. Define the terms Outlier, Inlier, and Escarpment. Explain their origin.

Mineralogy.

7. What is understood by mineral veins or lodes? How is their formation accounted for?
8. Illustrate by diagrams or describe the position of the axes in the different systems of Crystallization, and give an example of some mineral for each system.
9. Mention the chief minerals used as Gems, state their approximate composition and the physical characters by which they are distinguished from each other.
10. When are minerals said to be pseudomorphous? How have pseudomorphous minerals been formed?
11. Mention four or more metal-bearing minerals which have *no metallic* lustre.
12. Name six of the principal ores of Copper, and two minerals from which Lead is obtained. Give their general composition.

NATURAL SCIENCE.

Geology and Mineralogy.

Professor Morris.

Monday, April 18th. 3 P.M. to 6 P.M.

Geology.

1. What is considered to be the cause of Volcanic action, and associated phenomena?
2. Give the *subdivisions* of the Carboniferous rocks, and mention the chief economical substances obtained from them.
3. By what characters, either physical or organic, would you recognise deposits formed between tide marks, or in shallow water?
4. How is the occurrence of Mammalian remains in "Bone Caves" accounted for? To what geological period do they belong?
5. Explain the difference between Lamination, Foliation, and Cleavage of rocks. Give examples of rocks showing these structures.
6. State the geological distribution of the following genera, and refer them to their Zoological position:—Nummulites, Orthis, Goniatites, Gryphœa, Spirifer, Trigonia, Terebratula, Labyrinthodon, Nautilus, Graptolites, Paludina.

OPEN COMPETITION, 1870.

MINERALOGY.

7. Describe some of the principal Minerals which consist either entirely or chiefly of *Silica*.
8. What is the composition of Kaolin or Porcelain clay, and how has it been formed?
9. Describe some reactions before the blowpipe by which you would distinguish certain metallic substances.
10. State the general characters and composition of Calcite, Apatite, Aragonite, Pyrites, Selenite, Meerschaum, Dolomite, Augite, and Fluor spar.
11. Mention the several means of determining the species of a mineral.
12. Under what different *geological* conditions are Mineral substances usually found in nature?

NATURAL SCIENCE.

ZOOLOGY.

DR. M. FOSTER.

Tuesday, April 19th. 10 A.M. to 1 P.M.

1. Describe briefly the fundamental arrangement of the Vascular System in a Vertebrate Animal. State the chief modifications met with in the various Vertebrate Classes both at the adult age and during development.
2. Name the Orders of the Class *Mammalia*. Give an example of each. Show how these Orders may be arranged together in larger groups, choosing any Classification you please, but giving reasons for your choice.
3. Give the names and characters of four of the more important Orders of the Class *Insecta*, with an example of each Order. Write a short history of any case you please of "complete metamorphosis."
4. To what Sub-kingdom, Classes, and Orders do the Animals commonly known as "jelly fish" belong? Give a sketch of the Anatomy of any three typical forms.
5. Name as fully as you can the Classes and Orders of Invertebrate Animals having representatives in the *fresh-water* pools and streams of England.
6. Describe the structure and habits of a common Sponge. With what animals are Sponges most closely allied?

NATURAL SCIENCE.

ZOOLOGY.

DR. M. FOSTER.

Tuesday, April 19th. 3 P.M. to 6 P.M.

1. State in full the more important points in which the Skeleton of a Bird differs from and is like to that of a Mammal. Mention the names of as many Vertebrate Animals as you can not possessing Teeth.

OPEN COMPETITION, 1870.

2. State the chief differences between a shark, a perch, and a lamprey. Give the Order to which each belongs.
3. Describe the Nervous System of a Snail and of a Lobster. Compare them with each other and with the Nervous System of a Vertebrate Animal.
4. Give an account of the Structure and Development of a Barnacle. What are the Zoological Affinities of the *Cirripedia* (*Cirrhopoda*)?
5. Explain the terms *Mollusca* and *Molluscoida*. Give the names and characters of the Classes of each.
6. Give a detailed account of an instance of what is sometimes called "alternation of generations." Among what animals does it occur, and what is its true relation to ordinary reproduction?

NATURAL SCIENCE.

ELECTRICITY AND MAGNETISM.

PROFESSOR LIVEING.

Wednesday, April 20th. 10 A.M. to 1 P.M.

1. Define *neutrality* in electricity. Show whether it is absolute or relative, and if the latter point out to what you conceive it to be related.
2. Describe the different kinds of electric discharge, and the conditions under which they occur. How do you account for the light of the electric spark? Mention facts in corroboration of your theory; and show that the difference of appearance when the spark is taken through hydrogen, oxygen, and chlorine, respectively, is in accordance with it.
3. State the laws of static induction of electricity; and deduce the effects of varying the size of the core and of the insulating covering upon the electro-static capacity of a telegraph cable. Investigate the ratio of the electro-static capacities of the same cable when the distant end is (1) insulated, and (2) put to earth. Explain how a cable is worked so as to avoid charging it and discharging it at every signal.
4. Define electro-motive force. Show whether there is any electro-motive force (1) between the two ends of an insulated metal rod at rest with one end near an electrified body; (2) between any part of that rod and the ground; (3) between the two ends when the rod is moved from or towards the electrified body.
5. Explain how to measure the electro-motive force of (1) a plate of aluminium and one of lead in dilute hydrochloric acid; (2) in any of the cases in the foregoing question.
6. Define the magnetic meridian, and isogonic and isoclinic lines. Give a general account of the distribution of isogonic lines on the earth. Explain how it is that there are *two* points in each hemisphere to which they all converge.
7. Define a unit magnetic pole, and a magnetic field. Describe the magnetic field at any spot on the earth's surface, say in London, supposing no disturbing cause to exist in the neighbourhood. Explain why a bar of bismuth, delicately suspended by its middle, places itself equatoreally in the field of an ordinary magnet, but shows no tendency to place itself E. and W. under the action of the earth alone.

OPEN COMPETITION, 1870.

8. A ring of metal rotates about one diameter, which is at right angles to the plane of the magnetic meridian: explain, on general principles, the cause of the electric currents which are generated in it. Investigate the directions, and the ratio of the intensities, of the currents for any two given instantaneous positions of the ring, supposing it to rotate uniformly and so that the upper half rotates from S. to N. Compare the whole current generated during a half revolution when the axis is in the position above defined with that generated in a half revolution when the axis is vertical, the dip of the needle being 75°. Compare also the whole current in a ring of diameter D with that in a ring of diameter d, other circumstances being the same.

NATURAL SCIENCE.

ELECTRICITY AND MAGNETISM.

PROFESSOR LIVEING.

Wednesday, April 20th. 3 P.M. to 6 P.M.

9. Explain the action in a Daniell's cell, and the advantage of that construction. Explain also how the changes in the cell itself may be used to measure the current generated by it. Investigate the effect on the current of a battery of five cells with an external resistance equal to that of one cell (1) when half the liquid in one of the cells is poured out; (2) when for the zinc of one cell is substituted another metal such that that cell by itself produces a current only half that of any one of the other cells by itself.

10. Describe the construction of Thomson's (or of some other simple) galvanometer multiplier. Point out the circumstances upon which its sensibility depends, and explain exactly what it is which is measured by it. If you wanted to compare by means of such an instrument the currents from a Grove's (nitric acid) cell and from a single thermo-electric couple, explain how you would proceed.

11. Define a unit current. A battery of ten similar cells in each of which the resistance is R has its poles united by a wire of resistance r, and the current is then C. If now, the former connections being unaltered, a second wire of resistance r connect the extreme plates of the first six cells, and a third wire of resistance r connect the extreme plates of the remaining four cells, investigate the current in each of the three wires.

12. State the laws of heating by electric currents in good conductors. The poles of a battery are connected by two platinum wires of equal length and respectively 1 millimetre and ·5 mm. in diameter, independent of one another, but used simultaneously: state and explain the difference in the temperature of the two wires.

13. A Leyden battery consists of six similar jars, and if it be charged in the usual way the length of spark in air on discharging it is not greater than that produced when any one of the six jars is discharged separately; but if the six jars be charged *in cascade*, and the first of the series receive a charge equal to that of any one of the jars in the former case, the length of spark between

the inner coating of the first and the outer coating of the last jar is very much greater. Explain these phenomena by reference to general laws.

14. Six persons join hands and take a shock from a Leyden jar, the first of the six holding the jar by the outer coating and the last touching the knob. If the resistance to the passage of the electricity through the shoes of each person to the earth be twenty times as great as to the passage through his hand to his neighbour, and the electricity received by the first be *C*, find what fractions of *C* the other five will severally receive.

15. Explain the construction of an induction coil, and the principles of its action. What is the action of the core, and what advantages result from having it made of a bundle of wires rather than of a single bar?

16. Under certain circumstances a straight indefinite electric current will produce rotation of a magnet in its neighbourhood: describe fully how this experiment may be made; and explain on definite general principles the cause of the movement.

GERMAN LANGUAGE, &c.

DR. ALTHAUS.

Thursday, April 31st. 10 A.M. to 1 P.M.

Translate into English:

I.

Die Philosophie der Geschichte, welche die Kette der Tradition verfolgt, ist eigentlich die wahre Menschengeschichte, ohne welche alle äussern Weltbegebenheiten nur Wolken sind, oder erschreckende Mißgestalten werden. Grausenvoll ist der Anblick in den Revolutionen der Erde, nur Trümmer auf Trümmern zu sehen, ewige Anfänge ohne Ende, Umwälzungen des Schicksals, ohne dauernde Absicht! Die Kette der Bildung allein macht aus diesen Trümmern ein Ganzes, in welchem zwar Menschengestalten verschwinden, aber der Menschengeist unsterblich und fortwirkend lebt. Glorreiche Namen, die in der Geschichte der Cultur als Genien des Menschengeschlechts, als glänzende Sterne in der Nacht der Zeiten schimmern! Laß es sein, daß der Verfolg der Jahrtausende Manches von ihrem Gebäude zertrümmerte und vieles Gold in den Schlamm der Vergessenheit senkte: die Mühe ihres Menschenlebens war dennoch nicht vergeblich; denn was die Vorsehung von ihrem Werk retten wollte, rettete sie in anderen Gestalten.

Herder.

OPEN COMPETITION, 1870.

II.

Man kann die Kraft und Klugheit Peter's des Großen nicht hoch genug anschlagen, wohl aber seine Neuerungen in ihrer grundsätzlichen Bedeutung überschätzen. Nicht gar lange vor Peter's Thronbesteigung schrieb ein Reisender, nach längerem Aufenthalte in Rußland: hier ist Alles anders als in der andern Welt, die Russen haben durchaus asiatische und nicht im geringsten europäische Sitten; ihre Kleidung, ihre Festlichkeiten, ihre häuslichen Gewohnheiten, ihre Staatsverwaltung und ihre ganze Lebensart, Alles zeigt mehr den rohen Luxus Asien's als europäische Bildung. Was hier von der äußern Erscheinung des Volkes gesagt ist, dies allerdings suchte Peter mit rastloser Energie zu beseitigen. Alle Mittel seiner Allgewalt und seines rauhen Willens setzte er ein, um feinere Lebensart, abendländische Geselligkeit und europäische Industrie in Rußland hervorzurufen. Es gelang ihm so weit, daß er die Masse des Volkes zwar nicht verwandelte, jedoch die Anfänge einer städtischen Bevölkerung neben sie und eine französisch-gebildete Gesellschaft an ihre Spitze stellte. Für die nationale Cultur erreichte er damit nicht viel, wohl aber erweckte er einen innern Zwiespalt, der länger als ein Jahrhundert hindurch den Gang der russischen Politik auf das gewaltsamste beeinflußt hat. Ueberblickt man dagegen die Masse seiner staatlichen Reformen im engeren Sinne, so erhellt sehr leicht, daß er die principiellen Bestandtheile der Verfassung an keiner Stelle geschwächt, sondern im Gegentheil bei allen Aenderungen nur für ihre Stärkung gesorgt hat. Seine Thätigkeit läßt sich dahin characterisiren, daß er die asiatische Machtfülle des Kaiserthums erhöhte, indem er die Mittel derselben in europäischer Weise regelte und disciplinirte.

H. von Sybel.

III.

Dichterberuf.

Der Freiheit Priester, der Vasall des Schönen,
So wird der Dichter in die Welt gesandt;
Ein Troubadour zieh' er von Land zu Land,
Das Herrlichste mit seinem Lied zu krönen.

Die Heldenthat gewinn' in seinen Tönen
Für alle Zeiten sicheren Bestand!
Den eignen Kummer schreib' er in den Sand,
Des eignen Herzens mög' er sich entwöhnen.

Ein Gärtner, dem der Garten nur gegeben,
Für fremde Busen Blumen draus zu pflücken,
Ein Winzer, der für Fremde baut die Reben,—

Sei all' sein Trost, nur Andre zu beglücken;
Dem armen Taucher gleich, wag' er das Leben
Mit seltenen Perlen seine Zeit zu schmücken!

G. Herwegh.

Translate into German:

OPEN COMPETITION, 1870.

I.

A short interval elapsed after the death, in 1272, of Richard of Cornwall, before the electors could be induced, by the deplorable state of confusion into which Germany had fallen, to fill the imperial throne. Their choice was, however, the best that could have been made. It fell upon Rodolph, Count of Hapsburg, a prince of very ancient family, and of considerable possessions as well in Switzerland as upon each bank of the Upper Rhine, but not sufficiently powerful to alarm the electoral oligarchy. Rodolph was brave, active, and just; but his characteristic quality seems to have been good sense, and judgment of the circumstances in which he was placed. Of this he gave a signal proof in relinquishing the favourite project of so many preceding emperors, and leaving Italy altogether to itself. At home he maintained a vigilant spirit in administering justice, and is said to have destroyed seventy strongholds of noble robbers in Thuringia and other parts, bringing many of the criminals to capital punishment. But he wisely avoided giving offence to the more powerful princes; and during his reign there were hardly any rebellions in Germany.

Henry Hallam.

II.

The letter of Columbus to the Spanish monarchs had produced the greatest sensation at court. The event he announced was considered the most extraordinary of their prosperous reign, and following so close upon the conquest of Granada, was pronounced a signal mark of divine favour for that triumph, achieved in the cause of the true faith. The sovereigns themselves were for a time dazzled and bewildered by this sudden and easy acquisition of a new empire, of indefinite extent, and apparently boundless wealth; and their first idea was to secure it beyond the reach of dispute. Shortly after his arrival at Seville, Columbus received a letter from them expressing their great delight, and requesting him to repair immediately to court, to concert plans for a second and more extensive expedition.

Washington Irving.

GERMAN LANGUAGE, &c.

DR. ALTHAUS.

Thursday, April 21st. 3 P.M. to 6 P.M.

GRAMMATICAL QUESTIONS.

1. State the gender and form the genitive singular and the nominative plural of the substantives Kind, Gedanke, Geiſt, Ohr, Wald, Macht, Auge, Hinderniß, Lorbeer, and Ahn.
2. Give the nominative singular of the absolute and the conjunctive forms of the demonstrative, possessive, and interrogative pronouns. State in general terms how these pronouns are declined, and form some sentences showing the difference in the use of either form.

OPEN COMPETITION, 1870.

3. Which tenses of irregular verbs are subject to changes in conjugation, and what do those changes consist in? Illustrate your answer by examples.
4. Mention some compound verbs which are both separable and inseparable. Also state the tenses in which a separation may take place, and how it is affected by the construction of the sentence.
5. What are the respective places to be assigned to objects, adverbs of time, adverbs of place, infinitives, and past participles in a direct sentence? Form a sentence to illustrate your answer.
6. Mention all instances in which the nominative case must be placed after the verb.

LITERARY QUESTIONS.

1. At what time and under what circumstances did the *Meistergesang* spring up in Germany? What were its peculiar characteristics? Where did it flourish? and who was its principal representative?
2. Mention some of the German satirists, who flourished at the time of the Reformation. Trace the relation in which they stood to *Martin Luther*, and describe the distinctive influence exercised on German Literature by Luther himself.
3. Give an outline of the life and works of *Opitz*. Of what school of poets was he the founder, and what were his merits and his defects?
4. Describe the event known as *Der Kampf der Leipziger und der Schweizer*, and its connexion with the general progress of German Literature in the 18th century.
5. Who were the principal writers belonging to the Romantic School? Sketch the life of any one of them, and draw a parallel between the tendencies and productions of the Romantic School and the Classic School.
6. Name the poets and writers of *Young Germany*. What were their prominent characteristics, as distinguished from those of the Romanticists, and during what period and under what conditions did they exercise their greatest influence?

HISTORICAL QUESTIONS.

1. Give a sketch of the rise of the Carlovingian dynasty, down to the death of Charlemagne.
2. State in which reign and in what way commenced the struggles of the Emperors with the Popes. When did they reach their culmination point and when did they cease?
3. To what dynasty belonged the Emperors Charles IV., Wenceslaus (Wenzel), and Sigismund? Give an outline of their character, and mention the principal events of their reigns.
4. Enumerate the component parts of the Empire of Charles V. How did they become united under his rule, and how were they divided after his death? Also explain the general policy pursued by Charles V. and the succeeding Emperors of his house towards the German Empire.

5. Trace the gradual rise of Prussia, with special reference to the reigns of the Great Elector, Frederick William I., and Frederick II. OPEN COMPETITION, 1870.
6. Describe the political condition of Germany after the wars of liberation, in 1815. What means were resorted to, to restore unity among the German states, and why did those means fail?

GERMAN COMPOSITION.

Write an Essay on *one* of the following subjects, using the German character :—

1. Ueber den Einfluß freier Verfaſſungen auf den Fortſchritt der Civiliſation.
2. Ueber den Nutzen des Studiums der neueren Sprachen.
3. Vergleichende Characteriſtik Wellington's und Napoleon's.

Passage read for Dictation :—

Der junge Monarch, der 1740 auf Friedrich Wilhelm den Erſten folgte, war durch die harte Schule des Lebens hindurchgegangen ehe er den Preußiſchen Thron beſtieg. Die deſpotiſche Strenge und Einſeitigkeit des Vaters hatte ſich ſchon in der erſten Erziehung des Prinzen vergriffen; ſie wußte weder einem ſo regen Geiſt die rechte Nahrung zu geben, noch das Gemüth des Knaben mit kindlichem Vertrauen zu erfüllen. Während Friedrich Wilhelm den Sohn vor Allem zum ſparſamen Haushalter und zum Soldaten heranziehen wollte, fühlte des Prinzen feinere Natur ſich von der Monotonie der Paraden und des Exercirens gelangweilt. Wo dem Vater die Freuden der Jagd und des Tabaks-collegiums genügten, da zog es den Sohn zu höherer Nahrung und zu geiſtigem Umgang, und während Friedrich Wilhelm die altväteriſche Schlichtheit und Gläubigkeit hoch hielt, ſchien ſein Sohn zu Pracht und Freigebigkeit hinzuneigen, oder fühlte ſich doch angezogen von der Franzöſiſchen Bildung und Sitte, die der Vater verabſcheute.

ARABIC.

Colonel J. W. J. OUSELEY.

Thursday, April 21st. 10 A.M. to 1 P.M.

1. State how the particles مِن عن لي في govern nouns, and how the particles مَا كَأَنَّ أَنَّ إِنَّ and لا affect the subject and predicate of a proposition.
2. Show by examples how the particles إِن لم ان لن affect the aorist of verbs when prefixed thereto.

OPEN COMPETITION, 1870.

3. What are the peculiar properties of the following increased triliteral and quadriliteral verbs استقبال تمارض تصريف اخراج اطمينان اِقشعرار.
4. Write down the اسم فاعل and اسم مفعول of the above verbs.
5. Give a short sketch of the history of Mahommed; his tribe, birth, education, marriage, battles, miracles, &c.
6. State what you know of the سبعه معلقه *Sabai Mowllikah*, the subject of each poem, name of the author, &c.
7. Describe the battle of Kerbala and its results.
8. What are the chief points of difference between the Soonnee and Sheeah creeds?

To be translated into Arabic:

During the remainder of my stay at Bagdad, I busied myself in preparations for my journey, reducing my baggage to the smallest compass compatible with comfort, and leaving behind every unnecessary article, I determined to assume the character of a merchant, and procured some parcels of goods suited to the markets of the countries I proposed to visit. I likewise furnished myself with a stock of medicines, and as I was not at first very familiar with the language of the country, I sought to procure some respectable native to accompany me and to assist my efforts. After a short delay I considered myself fortunate in engaging for this purpose the services of Abdool Rezak a young man of good family and excellent character, his father being a wealthy and respectable merchant of Ispahan.

I was not able to accomplish my wishes.
He is accused of robbing his master.
Accustom yourself to read and write, indeed you should make it your constant practice.
He is exceedingly active in that business and has received an addition to his salary.

ARABIC.

Colonel J. W. J. OUSELEY.

Thursday, April 21st. 3 P.M. to 6 P.M.

Translate into English:

Page 175 of the Hudeekat-ul-Afrah, the story.

Page 108 of the Timour Nameh, one page.

Page 313, Arabian Nights, 14 lines (to the end of the verses).

Open Competition, 1870.

NATURAL SCIENCE.

Chemistry.

Professor Liveing.

Friday, April 22nd. 10 A.M. to 1 P.M.

1. Explain how to determine accurately the changes of capacity of a glass flask for any given changes of temperature.
2. Illustrate the law that "heat is created by work destroyed, and vice versâ." Explain how it holds (1) in the case of the fall of temperature of the air in the receiver of an air pump when the pump is worked; and (2) in the freezing of water in an exhausted receiver containing a pan of sulphuric acid.
3. A coil of platinum wire held in the flame of a gas lamp will continue to glow after the lamp has been blown out if the supply of gas continues: give an explanation of this phenomenon, and cite facts in support of that explanation.
4. Describe the preparation of carbonic oxide and of sulphur di-oxide, and explain the chemistry of those processes. Also describe briefly the leading characters of those compounds. Compare the quantities of oxygen in equal volumes of the two, show how the quantity of oxygen is determined, and how the formula is in each case arrived at.
5. Describe the preparation of common (or ortho-) phosphoric acid from bones, and explain the same. How are common sodium phosphate, and sodium and ammonium phosphate (microcosmic salt) obtained? Explain the action of heat upon each of these substances, and give the reaction of silver nitrate with each of them both before and after heating.
6. Define *quantivalence*, and explain the definition by examples. Show how the quantivalence of zinc is determined.
7. Define *isomorphism*, and give examples of this property, pointing out how the isomorphism shows itself in the cases cited. How does this explain away the apparent complexity of some chemical compounds? Calculate a formula for a substance containing

SO^3 - - - 35·82
Al^2O^3 - - - 13·64
Fe^2O^3 - - - 2·58
H^2O - - - 48·06
(S : Al : Fe = 32 : 27·4 : 56).

8. Describe the preparation of potassium ferrocyanide and ferricyanide respectively, and explain the same. Give the reaction of the former with ferric chloride. Name other double cyanides of a different type, and explain how they differ in properties from the former.

NATURAL SCIENCE.

Chemistry.

Professor Liveing.

Friday, April 22nd. 3 P.M. to 6 P.M.

Chemistry, including Heat.

9. Define specific heat, and explain how to find that of barium chloride. Explain how the value found for this (·8096) leads to the atomic weight 137 rather than 68·5 for barium.

OPEN COMPETITION, 1870.

10. Show by examples that the proportion of radiant heat absorbed by different media depends upon the source of heat. Compare the action in such cases with the absorption of light by metallic vapours.
11. Define the vapour density of a substance. Show how to determine the vapour density of mercury. The vapour density of a compound having an empiric formula $C^{2x}H^{4x}O^{x}$ is 44, when that of hydrogen is the unit; find x. The vapour density of sal-ammoniac is 14, nearly; show that this is anomalous, and explain the anomaly.
12. Describe the preparation of ammonium sulphide, and give its reactions with solutions of (1) arsenious oxide, (2) ferric chloride. Give also the reactions of ammonia with (1) mercuric chloride, (2) iodine.
13. Give an account of the chief chemical characters of tin and magnesium. In what states of combination are they respectively most abundant in nature? Explain how they are obtained in the metallic state.
14. Given a mixture of atmospheric air and a gaseous hydrocarbon of unknown composition, explain fully how to determine (1) the proportion of air in the mixture, and (2) the proportion of hydrogen to carbon in the compound.
15. Give the chemical composition of starch, and name other substances isomeric (or polymeric) with it. Explain the chemical changes it undergoes in the ordinary process of bread-making, and the further changes in it when the dough is allowed to go sour.
16. Describe the ordinary modes of preparing benzol and phenol (carbolic acid), explaining the principles of them. Describe the chemical characters of phenol. Upon what does its antiseptic power hinge? Explain the action of strong nitric acid upon it.

NATURAL SCIENCE.

BOTANY.

DR. T. THOMSON.

Saturday, April 23rd. 10 A.M. to 1 P.M.

1. Give an account of the various kinds of inflorescence, with illustrations of each taken from British plants.
2. Describe the development of a moss from the spore to the maturity of the theca.
3. Describe the structure and function of the leaf.
4. Contrast the characters of *Leguminosæ* and *Rosaceæ*, pointing out in what respects they agree and differ.
5. Explain the nature of stipules; point out their principal modifications, and enumerate the British natural orders in which they are present.
6. What are the chief characteristics of the Mediterranean Flora?
7. Enumerate the principal vegetable dyes, stating in each case the colour of the dye, the name and natural order of the plant yielding it, and the part of the plant used.
8. What is meant by the rotation of crops, and on what physiological principles is it based?

OPEN COMPETITION, 1870.

NATURAL SCIENCE.

BOTANY.

DR. T. THOMSON.

Saturday, April 23rd. 3 P.M. to 6 P.M.

1. Describe the chief modifications of the fruit, with illustrations of each taken from British plants.
2. What are the principal differences between the ascending and descending axis?
3. In what way do the wood, leaves, and ovule of conifers differ from those of ordinary exogens?
4. What are the principal differences between exogens and endogens?
5. Enumerate the British natural orders in which the leaves are opposite and alternate respectively.
6. What is the nature of pollen? Where and how is it formed? How does it vary in shape, and what changes does it undergo when applied to the stigma?
7. What are the most striking features of the Flora of Australia as contrasted with that of Europe?
8. What is meant by Natural Selection? Give a sketch of Mr. Darwin's views regarding it.

SANSKRIT.

E. B. COWELL, ESQ.

Saturday, April 23rd. 10 A.M. to 1 P.M.

ALL Sanskrit words should be written with Devanâgarî letters.
Marks will be given for good handwriting.
The questions should be answered in the same order in which they are printed.
The proper number should be attached to each answer.

1. Apply the rules of Sandhi to

   ऋतस्य + ऋतेन,

   पश्यन् + ऋणम्,

   दुर्मनाः + अहम्,

   वाग् + होता,

   ताम् + जिताम्,

   तान् + जितान्,

   दुह् + ध्वम् (Imperative Âtm.),

   लिह् + तुम् (Infin.),

2. Give the Nominative and Dative, Singular and Plural, of पथिन्. To what is पथिन् changed at the end of a compound? When is there an option?

3. Give the Accusative Singular of स्त्री and योद्धृ.

4. Give the Nominative Plural of पति and हृद् (n.), and the Accusative Plural of तिर्यच् (m.).

OPEN COMPETITION, 1870.

5. Give the Accusative Plural, Feminine, of the Present Participles Parasmaipada ऋध्नुवत्, दिशत् and क्लिश्नत्.

6. Give the Nominative Singular and the Accusative Plural of श्वन् and सुतुस् (m.).

7. What is the Locative Plural of पुंस्? Give your reasons for your answer.

8. Give the Ablative, Singular and Plural, of युष्मद्.

9. Give the Second Person Singular of the Imperative Parasmaipada of ऋध् (ऋध्नोति), and the Second Person Plural of the Imperative Âtmanepada of क्री (क्रीणाति),

10. Give the Third Person Plural of the Present and Imperfect Parasmaipada of ह्री (जिह्रेति).

11. Give the Second Person Singular of the Reduplicated Perfect Parasmaipada of हृ, सद्, and the Second Person, Singular and Plural, of स्तु.

12. Give the Third Person Dual of the Aorist Parasmaipada of रुध्, प्रच्छ् and ह्वे.

13. Give the Third Person Singular of the Present Intensive, with य, of यज् and स्तु, and, without य, of ग्री and फल्. Can you explain the irregularity of the last form?

14. When is the final *u* of a root lengthened?

15. Give instances of the various ways in which a medial *ri* of a root can be changed in conjugation.

16. In what roots and under what circumstances does a final ज् become ष्?

17. Mention some words in Sanskrit which can never stand at the beginning of a sentence.

18. Distinguish between दहि, एहि; ददाति, दादाति; जहि, जहिहि; आश्वस्य, आश्वास्य.

19. *Translate into Sanskrit:*

a. The prince walked on the bank of the river and saw many beautiful trees laden with fruit; but he did not gather any.

b. Many say that the sun lives and is the maker of all things. Now it is necessary that that thing which is the cause of the being of another thing, should be present at its production; but many things come into being during the sun's absence, and therefore, he is not the maker of all things. And that the sun hath not life is evident, for it always moves unwearied in its circle. If it had life it would require rest as we do; and were it free, it would visit other parts of the heavens; but it moves always in the same course, like an arrow directed by the hand of the archer.

SANSKRIT.

E. B. COWELL, ESQ.

Saturday, April 23rd. 3 P.M. to 6 P.M.

OPEN COMPETITION, 1870.

Translate into English:

I.

सुमहान्त्यपि शास्त्राणि धारयन्तो बहुश्रुताः ।
क्षेत्तारः संशयानां च क्लिश्यन्ते लोभमोहिताः ॥
लोभात् क्रोधः प्रभवति लोभात् कामः प्रजायते ।
लोभान्मोहश्च नाशश्च लोभः पापस्य कारणम् ॥

मनस्वी म्रियते कामं कार्पण्यं न तु गच्छति ।
अपि निर्वाणमायाति नानलो याति शीतताम् ॥
कुसुमस्तवकस्येव द्वे वृत्ती तु मनस्विनः ।
सर्वेषां मूर्ध्नि वा तिष्ठेद्विशीर्येदथवा वने ॥

मुकुटे रोपितः काचश्चरणाभरणे मणिः ।
न हि दोषो मणेरस्ति किंतु साधोरविज्ञता ॥
बुद्धिमाननुरक्तोऽयमयं शूरः कृतो भयम् ।
इति भृत्यविचारज्ञो भृत्यैरापूर्यते नृपः ॥

Hitopadeśa.

II.

एवं चित्रमभूद्युद्धं तस्य तैः सह भारत ।
घोररूपमसंहार्यं निर्मर्यादमवर्तत ॥
नराश्चैव नरैः सार्धं दन्तिनो दन्तिभिस्तथा ।
हया हयैः समासक्ता रथिनो रथिभिः सह ॥
ते समासाद्य समरे परस्परमरिंदमाः ।
विविधुश्चैव जघ्नुश्च समासाद्य महाहवे ॥
तेषां शस्त्रसमुद्भूतं रजस्तीव्रमवर्तत ।
वातेन चोद्धतं राजन् धावद्भिश्चाश्वसादिभिः ॥
रथनेमिसमुद्भूतं निश्वासैश्चापि दन्तिनाम् ।
रजः संध्याभ्रसंकाशं दिवाकरपथं ययौ ॥
रजसा तेन संवृक्तो भास्करो निष्प्रभः कृतः ।
संछादिताभवद्भूमिस्ते च शूरा महारथाः ॥

Mahábhárata.

OPEN COMPETITION, 1870.

III.

चत्रियं चैव सर्पं च ब्राह्मणं च बहुश्रुतम्।
नावमन्येत वै *भूष्णुः क्षणानपि कदाचन॥
एतत्त्रयं हि पुरुषं निर्दहेदवमानितम्†।
तस्मादेतत्त्रयं नित्यं नावमन्येत बुद्धिमान्॥
नात्मानमवमन्येत पूर्वाभिरसमृद्धिभिः।
आ मृत्योः श्रियमन्विच्छेन्नैनां मन्येत दुर्लभाम्॥

Manu.

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* धनायुरादिना वर्धनशीलः। *Comm.*

† एतत्त्रयमवमानितं सदवमन्तारं विनाशयति चत्रियसर्पौ दृष्टशक्त्या ब्राह्मणश्चाभिचारादिनादृष्टेन। *Comm.*

IV.

न हि शरीरात्माभिमानिनो दुःखभयादिमत्त्वं दृष्टमिति तस्यैव वेदप्रमाणजनितब्रह्मात्मावगमे तदभिमाननिवृत्तौ तदेव मिथ्याज्ञाननिमित्तं दुःखभयादिमत्त्वं भवतीति शक्यं कल्पयितुम्। न हि धनिनो गृहस्थस्य धनाभिमानिनो धनापहारनिमित्तं दुःखं दृष्टमिति तस्यैव प्रव्रजितस्य धनाभिमानरहितस्य तदेव धनापहारनिमित्तं दुःखं भवति। न च कुण्डलिनः कुण्डलित्वाभिमाननिमित्तं सुखं दृष्टमिति तस्यैव कुण्डलविमुक्तस्य कुण्डलित्वाभिमानरहितस्य तदेव कुण्डलित्वनिमित्तं सुखं भवति। तदुक्तं श्रुत्या। अशरीरं वाव सन्तं न प्रियाप्रिये स्पृशत इति।

Śankarāchārya.

Questions on Literature, Philosophy and Religion.

1. Give some account of the Puránas. How do they differ from the Mahábhárata and Rámáyana?
2. Write a short sketch of the Yoga philosophy.
3. What is the subject of the Kumárasambhava?
4. Who was Śankaráchárya? Write anything you know about his life and works.
5. Write a short account of the Śiśupálabadha, the Gítagovinda, and the Kathásaritságara.
6. What are the principal Smriti works? What is meant by Vidhi?

ITALIAN LANGUAGE, &c.

Open Competition, 1870.

Signor De Tivoli.

Monday, April 25th. 10 A.M. to 1 P.M.

I.

Translate into English:

Ambascerìa dell'Imperator Antonino alla China.

Dopo aver seguito li antichi nelle scoperte che fecero dell'India per mare, passo ad esaminare le cognizioni ch'eglino poterono acquistare coi loro viaggi di terra. Pare, come ho già detto, che il commercio dell'India incominciasse a farsi molto per tempo dalle provincie poste sulla sua frontiera settentrionale. Le varie produzioni e le molte manifatture Indiane erano condotte per terra nelle provincie interne dell'Impero Persiano, ove giungevano sui fiumi navigabili che traversano l'Asia superiore sino al mar Caspio, e di là al Ponto Eusino. Finchè i successori di Seleuco dominarono nell'oriente, questo fu il metodo costante con cui i loro sudditi si procuravano le merci dell'India. Quando i Romani ebbero estese le loro conquiste nell'oriente fino alle sponde dell'Eufrate, vi trovarono già aperta la strada; e siccome essa offriva loro una nuova comunicazione col Levante, ed anche li provedeva in maggior copia di tutti gli oggetti di lusso che sempre più loro divenivano graditi; così il proteggere e l'incoraggiare questo commercio divenne per essi un punto di politica. Ma il commercio delle caravane e delle compagnie dei mercanti che viaggiavano verso i paesi d'onde venivano loro le più ricche manifatture, e specialmente quelle di seta, essendo sovente interrotte ed infestate dalle scorrerìe dei Parti, divenuti padroni di tutte le provincie che dal mar Caspio stendonsi fino a quella parte della Scizia e della Tartaria la quale confina colla China; i Romani procurarono di rendere questo commercio più sicuro, intavolando un trattato con uno dei Monarchi di quel grande Impero. E a dire il vero nessun autore greco o romano fa menzione di questa singolare negoziazione, della quale i soli storici Chinesi ci hanno dato notizia. Essi narrano che An-Toun (l'Imperator Marco Antonino) Re dei popoli dell'oceano occidentale, spedì a tale oggetto ambasciadori a Oun-Ti che regnava allora nella China, cioè nell'anno 166 dell'era cristiana. Nulla però dicono dell'esito di quest'ambascerìa; onde ignoriamo s'ella agevolò fra queste due nazioni così distanti una corrispondenza che le mettesse in istato di provedere scambievolmente ai loro bisogni. È certo però che questo passo era degno delle grandiose vedute dell'Imperatore Romano cui viene attribuito.

Romagnosi,

(*Ricerche storiche su l'India antica.*)

II.

L'Occasione.

Chi sei tu che non par donna mortale?
Di tanta grazia il ciel t'adorna e dota
Perchè non posi? perchè ai piedi hai l'ale?
Io son l'Occasïone, a pochi nota
E la cagion che sempre mi travagli
È per ch'io tengo un piè sopra una ruota

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Volar non è che al mio correr s'agguagli
E però l'ale ai piedi mi mantengo
Acciò nel corso mio ciascuno abbagli.
Gli sparsi miei capei dinanzi io tengo,
Con essi mi ricopro il petto e 'l volto
Perch'un non mi conosca quando vengo.
Dietro del capo ogni capel m'è tolto
Onde invan s'affatica un, se gli avviene
Ch'io l'abbia trapassato o s'io mi volto.
Dimmi: chi è colei che teco viene?
È penitenza: e però nota e intendi:
Chi non sa prender me, costei ritiene
E tu mentre parlando il tempo spendi,
Occupato da molti pensier vani
Già non t'avvedi lasso e non comprendi
Com'io ti son fuggita dalle mani?

N. MACHIAVELLI.

III.

Translate into Italian:

Another common maxim is, that we must not look a gift horse in the mouth: nor a lady's age in the parish register. We hope we have more delicacy than to do either; but some faces spare us the trouble of these dental inquiries. And what if the beast, which my friend would force upon my acceptance, prove upon the face of it a sorry Rosinante, a lean, ill-favoured jade, whom no gentleman could think of setting up in his stables? Must I, rather than not be obliged to my friend, make her a companion to Eclipse or Lightfoot? A horse giver, no more than a horse seller, has a right to palm his spavined article upon us for good ware. An equivalent is expected in either case; and with my own good will, I would no more be cheated out of my thanks than out of my money. Some people have a knack of putting upon you gifts of no real value, to engage you to substantial gratitude. We thank them for nothing. Our friend Mitis carries this humour of never refusing a present, to the very point of absurdity, if it were possible to couple the ridiculous with so much mistaken delicacy, and real good nature. Not an apartment in his fine house (and he has a true taste in household decorations) but is stuffed up with some preposterous print or mirror,—the worst adapted to his panels that may be,—the presents of his friends that know his weakness; while his noble Vandykes are displaced, to make room for a set of daubs, the work of some wretched artist of his acquaintance, who having had them returned upon his hands for bad likenesses, finds his account in bestowing them here gratis. The good creature has not the heart to mortify the painter at the expense of an honest refusal.

Essays of Elia, by CHARLES LAMB.

IV.

Translate freely into Italian prose:

SENSITIVENESS.

There is a plant that in its cell
All trembling seems to stand,
And bends its stalk and folds its leaves
From each approaching hand.

OPEN COMPETITION, 1870.

And thus there is a conscious nerve
Within the human breast,
That from the rash and careless hand
Sinks, and retires distrest.

The pressure rude, the touch severe,
Will raise within the mind
A nameless thrill, a secret tear,
A torture undefined.

Oh! you who are by nature formed
Each thought refined to know,
Repress the word, the glance that wakes
That trembling nerve to woe.

And be it still your joy to raise
The trembler from the shade,
To bind the broken, and to heal
The wound you never made.

Whene'er you see the feeling mind,
Oh! let this care begin;
And though the cell be ne'er so low,
Respect the guest within.

L. HUNTLEY.

Passages read for Dictation:—

Mio Signore,

È molto tempo che ho vivo desiderio di scrivervi, e come ammiratore di voi e come scrittore di versi giocosi che riconoscono da voi non dirò la nascita e la fisonomia ma di certo una buona parte dell'allevatura. Voi nato popolano, amico del popolo, e studioso unicamente del popolo, avete saputo dare alla canzonetta francese gli spiriti ed il volo dell'ode senza mutarne le corde, senza affettare di traspiantarla dal cavo all'accademia, senza che il popolo s'accorgesse nel cantarla che le sue ali erano cresciute. Felice voi che avete potuto vedere il frutto dell'opera vostra nelle giornate di Luglio e la corona civica intrecciarsi all'alloro sulla vostra fronte rispettabile. Io nato in condizioni molto diverse, ma caldo amico del mio paese come voi del vostro, mi sentii spinto fino da giovinetto a schernire gli errori, i pregiudizi, e le turpitudini di ogni genere, ed o per isdegno, o per indocilità alla scuola, senza curarmi d'andare sulla falsa riga di questo o di quello, senza riverire scrupulosamente i soli vocaboli battezzati nell'inchiostro, mi rischiai a camminare colle mie gambe ed a prendere in mano la lingua che avevo in bocca.

Lungi dal proprio ramo
Povera foglia frale
Dove vai tu? Dal faggio
Là dove io nacqui mi divise il vento.
Esso tornando a volo
Dal bosco alla campagna,
Dalla valle mi porta alla montagna.
Seco perpetuamente
Vo pellegrina e tutto l'altro ignoro.
Vo dove ogni altra cosa,
Dove naturalmente va la foglia di rosa
E la foglia d'alloro.

OPEN COMPETITION, 1870.

ITALIAN LANGUAGE, &c.

SIGNOR DE TIVOLI.

Monday, April 25th. 3 P.M. to 6 P.M.

[N.B.—*The Questions are to be answered in English.*]

GRAMMATICAL QUESTIONS.

1. Explain and give four examples of four different meanings given in Italian to the preposition *da*.
2. State the rules for the respective position of the noun and adjective in familiar style.
3. Define and exemplify the three distinct significations of the pronoun *si*, and state in what it differs from the French pronoun *on* when used as an impersonal pronoun.
4. Say when the article should precede the possessive pronoun, and when it is to be dispensed with.
5. Must the past participle accompanied by the auxiliary *avere* agree or not with the accusative?
6. Give the preterite and past participle of the verbs *Piacere, Redimere, Commettere, Profferire.*

LITERARY QUESTIONS.

(*Dates to be given in all cases.*)

1. Say what you know of Guido Cavalcanti, and what he wrote.
2. What are the characteristics that distinguish as men and as historians Machiavelli, Guicciardini, and Varchi?
3. Name the work for which Giovanbattista Vico is celebrated, and state what has been its influence.
4. What branch of literature did Gioia and Romagnosi cultivate, and what are their most celebrated works?
5. What is the state of Philosophical Science in Italy at the present time? Mention the names of some of the principal contemporary philosophical writers.
6. Point out the prominent features in the respective poetical works of Giusti, Prati, and Aleardi, which distinguish them.

HISTORICAL QUESTIONS.

(*Dates to be given in all cases.*)

1. Describe the circumstances that led to the catastrophe known under the name of *Vespri Siciliani.*
2. Relate what you know about Pier Capponi, and the special action for which he is celebrated in the history of his country.
3. Give a short sketch of the life, deeds, and death of Francesco Ferruccio.
4. What were the most important stipulations in the Treaty of Campo Formio?
5. Give the details of the peculiar phases of the Battle of Marengo, and its political results.
6. State how and to whom was Italy apportioned by the Treaty of Vienna.

FINAL EXAMINATION. CANDIDATES OF 1868. — Arrangement.

4.—EXAMINATION PAPERS

SET AT THE FINAL EXAMINATION* OF CANDIDATES SELECTED IN 1868.

ARRANGEMENTS.

NOTICES.

1. This paper should be carefully preserved, and produced when required during the course of the examination.
2. No candidate will be allowed to quit the examination room on any day until the expiration of half an hour from the time fixed for the commencement of the examination; and candidates arriving after the expiration of that half hour will not be admitted.
3. No candidate who has left the examination room during the hours assigned to paper work will be permitted to return to the paper which he quitted.
4. Any candidate detected in the use of a book or manuscript brought with him for his assistance, or in copying from the papers of any other candidate, or in giving or receiving assistance of any description, will be regarded as disqualified, and his name will be removed from the list.
5. The result of the examination will probably be known by the beginning of August, and will be communicated by letter to each candidate.

Civil Service Commission,
25th May 1870.

FINAL EXAMINATION OF CANDIDATES SELECTED IN 1868.

Order of the Examination on Paper.

Place of Examination.	Day.	Hour.	Subjects of Examination.
University of London, Burlington Gardens, Old Bond Street.	*Tuesday, 7th June* -	10 A.M. to 1 P.M. 3 P.M. to 6 P.M.	Jurisprudence.
	Wednesday, 8th June	10 A.M. to 1 P.M. 3 P.M. to 6 P.M.	Law of Evidence.
	Thursday, 9th June -	10 A.M. to 1 P.M. 3 P.M. to 6 P.M.	Law of India.
	Friday, 10th June -	10 A.M. to 1 P.M. 3 P.M. to 6 P.M.	Law of India.
	Saturday, 11th June	10 A.M. to 1 P.M.	Law (Prize Examination).†
	Monday, 13th June -	10 A.M. to 1 P.M. 3 P.M. to 6 P.M.	History and Geography of India.

* For the instructions issued with respect to this examination see p. 256.

† Candidates will be admitted to the examination for prizes pending the decision of the Commissioners, as to their eligibility. They must hold themselves in readiness to attend for *viva voce* examination, if required.

FINAL EXAMINATION. CANDIDATES OF 1868.

Time Table.

Place of Examination.	Day.	Hour.	Subjects of Examination.
University of London, Burlington Gardens, Old Bond Street.	*Tuesday*, 14*th June* -	10 A.M. to 1 P.M.	History and Geography of India (Prize Examination).*
		3 P.M. to 6 P.M.	Political Economy.
	Wednesday, 15*th June*	10 A.M. to 1 P.M.	Political Economy.
		3 P.M. to 6 P.M.	Political Enconomy (Prize Examimation).*
	Thursday, 16*th June*	10 A.M. to 1 P.M. and 3 P.M. to 6 P.M.	Sanskrit and Arabic.
	Friday, 17*th June* -	10 A.M. to 1 P.M.	Sanskrit and Arabic (Prize Examinations).*
		3 P.M. to 6 P.M.	Hindustani.
	Saturday, 18*th June* -	10 A.M. to 1 P.M. and 3 P.M. to 6 P.M.	Hindustani.
	Monday, 20*th June* -	10 A.M. to 1 P.M.	Hindustani (Prize Examination).*
		3 P.M. to 6 P.M.	Hindi and Telugu.
	Tuesday, 21*st June* -	10 A.M. to 1 P.M. and 3 P.M. to 6 P.M.	Hindi and Telugu.
	Wednesday, 22*nd June*	10 A.M. to 1 P.M.	Hindi and Telugu (Prize Examinations),* Gujarati.
		3 P.M. to 6 P.M.	Gujarati, Tamil, and Bengali.
	Thursday, 23*rd June*	10 A.M. to 1 P.M.	Gujarati, Tamil, and Bengali.
		3 P.M. to 6 P.M.	Gujarati (Prize Examination).* Tamil and Bengali.
Civil Service Commission, Cannon Row.	*Friday*, 24*th June* -	10 A.M. to 1 P.M.	Tamil and Bengali (Prize Examinations).*
	Saturday, 25*th June* -	10 A.M. to 1 P.M. and 3 P.M. to 6 P.M.	Marathi and Persian.
	Monday, 27*th June* -	10 A.M. to 1 P.M.	Persian (Prize Examination).* Marathi.
		3 P.M. to 6 P.M.	Marathi (Prize Examination).*
	Tuesday, 28*th June* -	10 A.M. to 1 P.M. and 3 P.M. to 6 P.M.	Braj Bhâkhâ.

* Candidates will be admitted to the examination for prizes pending the decision of the Commissioners as to their eligibility. They must hold themselves in readiness to attend for *vivâ voce* examination, if required.

** There will be a *vivâ voce* examination in each subject.

FINAL EXAMINATION. CANDIDATES OF 1868.

Examiners.

EXAMINERS.

Jurisprudence	T. C. SANDARS, Esq.
Notes of Cases and Law of Evidence	F. LUSHINGTON, Esq.
Law of India, &c.	H. S. MAINE, Esq.
History and Geography of India	C. ERSKINE, Esq.
Political Economy	Rev. J. E. THOROLD ROGERS.
Hindustani	FITZ-EDWARD HALL, Esq.
Hindi	FITZ-EDWARD HALL, Esq.
Bengali	Rev. Dr. MULLENS.
Tamil	Rev. S. HOBBS.
Telugu	J. GOLDINGHAM, Esq.
Gujarati	Rev. Dr. GLASGOW.
Marathi	Rev. A. H. FROST.
Sanskrit	E. B. COWELL, Esq.
Arabic	COLONEL OUSELEY.
Persian	COLONEL OUSELEY.
Braj Bhâkhâ	FITZ-EDWARD HALL, Esq.

JURISPRUDENCE.

T. C. SANDARS, Esq.

Tuesday, 7th June 1870. 10 A.M. to 1 P.M.

1. Give a sketch of the Royal Prerogative according to English law, showing how far the several modes in which it is exercised fall within the province of Jurisprudence as determined by Austin.
2. In what respects was the Roman law as regards marriage more advantageous to the wife than the English law?
3. Analyze the following terms:—promise; pollicitation; pact; contract; quasi-contract.
4. What are the postulates of International Law? Under what branch of his subject does Austin place International Law? How far is International Law a part of the Law of England?
5. Give a sketch of the Roman contract of mandate. What is its equivalent in English law?
6. What conditions does Bentham think must be fulfilled in order that laws may be in conformity to general expectation?
7. With what part of the legal system of Rome may the feudal tenure of land be most probably connected?
8. Give an analysis of the Chapter on Actions in the Fourth Book of the Institutes.

JURISPRUDENCE.

T. C. SANDARS, Esq.

Tuesday, 7th June 1870. 3 P.M. to 6 P.M.

1. What are the titles constituting property recognised by Bentham? How far is what he says on this head in harmony with the doctrines of Roman law?
2. Compare the Roman law as to tutors and curators with the English law as to guardian and ward.

FINAL EXAMINATION. CANDIDATES OF 1868.

3. Discuss the origin, the diffusion, and the forms of primogeniture.
4. State the sources of English and of Roman law respectively.
5. Notice the principal changes in the law of intestate succession introduced (1) by the Prætors, (2) by Imperial legislation.
6. Notice the chief points in the Roman law as to citizens and foreigners, and in the English law as to subjects and aliens.
7. What, according to Bentham, are the principal objects of legislation, and what is their relative importance?
8. How far under Roman law was a master answerable for the acts of his slave; and how far under English law is a master answerable for the acts of his servant?

LAW OF EVIDENCE.

F. LUSHINGTON, Esq.

Wednesday, 8th June 1870. 10 A.M. to 1 P.M.

1. In an action for libel, state when evidence of former libels published by the defendant concerning the plaintiff is admissible for any and for what purposes.

   In an action on contract, examine the cases in which dealings between the parties on previous occasions may be admitted as relevant evidence.

   In criminal practice, show by illustrations when and how far former acts of the accused may be put in evidence against him.

2. In the book of the deceased steward of a deceased landowner *A*, entries are found in *A*'s handwriting, purporting to contain the substance of a lease granted by *A* to a tenant, and an acknowledgement of the payment of rent due under the lease. Are such entries admissible—

   in proof of the contents of the lease?

   in proof of the title of *A*'s heir to the land alleged to be demised by the lease?

   in proof of the acquittance of the tenant from the particular debt if sued for by such heir?

   Give rules and reasons.

3. *A* sues *B* for the breach of certain covenants alleged to be contained in a lease. *B* denies in pleading that such covenants were entered into. At the trial *A* produces a letter in *B*'s hand, stating that "It is true that my lease contained the covenants "alleged, but I have always considered that you waived them." The lease not being produced, and its absence not accounted for, would this letter be admissible in evidence; and, if so, what would be its effect? Give rules and reasons.

4. Examine the extent to which admissions are presumable from the silence or demeanour of a party in whose presence statements respecting him are made.

   Explain generally what is meant by "estoppel *in pais*," and give illustrations. Show under what head of the Law of Evidence the law of estoppel comes, and upon what principle it is founded; and state how far the effects of estoppel extend beyond the person whose own act has estopped him.

5. *A* constitutes *B* manager of his property and receiver of his rents. *C* brings a suit claiming part of *A*'s estate under a gift from *A*'s father. *D* offers to swear that he has heard *B*, while such

manager and receiver, admit that *C*'s claim is undoubtedly valid. Is *D*'s statement of such an admission by *B* relevant, conclusive, admissible, or inadmissible, as part of *C*'s case? If *B* should be produced at the trial to give evidence on behalf of *A*, and on cross-examination should deny that he had ever said or thought that *C*'s claim was valid, could *D* be called to contradict him? Give reasons for your answer.

6. *A* (now deceased) was till three years ago agent for *B* and receiving his rents. *B* now sues *C*, a tenant, for six years arrears of rents. *C* proffers in evidence a letter written by *A* shortly before his death a year ago, saying, "I remember that you paid "me up the rent in full to the date when I ceased to be agent "for *B*." Is this admissible or conclusive evidence against *B* as to the earlier portion of the debt sued for?

7. *A* is sued for the damages resulting from a deliberate act done by his servant, agent, or partner;

A is sued by his servant *B* for the consequences of a negligent act done by *B*'s fellow-servant *C*;

A is sued for the consequences of a negligent act done by his agent, servant, or partner;

A is prosecuted criminally for the consequences of an act done by his servant, agent, or partner;

State the evidence in each case necessary to justify a verdict against *A*.

8. Explain the grounds upon which, and the process by which, the unsuccessful party in a civil suit may upset a verdict which has been found against him; particularizing the steps to be taken where the adverse verdict is supposed to arise from misconduct of the judge, and where from that of the jury.

9. Examine the cases in which by English law or practice more testimony than that of a single witness is required, and show whether or why such cases are consistent or inconsistent with the maxim, "Testimonia ponderanda sunt non numeranda."

LAW OF EVIDENCE.

F. LUSHINGTON, ESQ.

Wednesday, 8th June 1870. 3 P.M. to 6 P.M.

1. Noir and Fonvielle go to Pierre Bonaparte's house to arrange a duel between *B* and *G*. *B* shoots *N* in presence of *F* only, who runs out of the house carrying a sword cane, and a pistol loaded and cocked in his hand. *N* drops dead outside. His body is taken at once into a chemist's shop, whither also *F* goes.

On *B*'s trial for murder, *F* denies that any provocation was given by himself or *N*.

B's servant deposes that *B* said he had been struck by the taller of the two.

X, *Y*, and *Z* depose to having seen traces of a blow on *B*'s face.

De Grave deposes that *B* immediately after the event stated that he was struck by *N* and threatened by *F*, who showed a pistol; that being asked why he did not first fire on *F*, *B* replied he first thought of avenging the insult of the blow.

FINAL EXAMINATION. CANDIDATES OF 1868.

Five witnesses are examined relatively to an expression of Rambaux, who is alleged to have said that *B* would be insulted at his own house on the day in question.

A butcher deposes that he heard some one say in the street, "Il a tué mon ami, mais il a reçu un fameux soufflet," and that he recognised the voice as that of *F* in the shop.

Bourgoin deposes that *F* spoke of *N*'s threatening gesture, but didn't recollect his saying that *N* struck *B*.

Chrappe and Carnot depose that Bourgoin told them that *B* had received a blow.

Vinviollet heard *F* say at the chemist's that *N* struck *B*.

Chaponet and another repeat what they had heard from Vinviollet.

Wachter deposes that *F* had said to him in conversation, "Calumny is an arm we have a right to use against political adversaries."

Clary deposes that to his knowledge *B* always went armed.

Martin knew that *F* was always armed, and that *N* was ambitious of being a gentleman.

Natal swears he heard it said in the chemist *Q*'s shop that *B* had received a blow.

Q denies that any such statement was made in his shop.

Natal swears that *Q* said so himself in presence of Morel, editor of *Moniteur*.

Morel declares *Q* did not say so: that if *Q* had said so, he should have published it in his journal, as he went to get information.

Demange deposes that at the preliminary examination Morel said he could not hear what was said.

Analyze the admissibility and character of the above statements according to English rules of evidence, and show how each of the facts deposed to bears on the questions of palliation and justification.

2. Give an illustration of each of Vice-Chancellor Wigram's rules for the construction of documents quoted by Pitt Taylor; and explain the cases in which parol evidence may be given to avoid, add to, or show the waiver of, a written contract.

3. Explain the general doctrine of the burthen of proof in civil and criminal cases, and the exceptions to the general rule. Show how far the conduct of the case follows the burthen of proof, where that burthen rests entirely upon one party, and where it is divided between the two parties.

A sues *B* for shipping highly inflammable goods on board A's vessel without giving notice of their nature, whereby the vessel was burnt. Where does the burthen rest of proving whether notice or no notice was given, and why?

4. Analyze as fully as you can the distinction between probability and presumption: and mention the chief disputable presumptions relative to recent and ancient deeds, wills, contracts, and bills of exchange.

5. Examine at length the reasons for the general exclusion of hearsay, and the reasons for admitting it in each of the six classes of cases in which the rule has been relaxed.

6. A caller knocks at the door of *A*'s house in London: *A*'s servant says his master is gone into the country. An hour later *A* is seen to leave his house in a cab, which the servant directs the cabman to drive to the Charing Cross Station. *A* whispers to

a friend at the door, "If I don't cross the channel to-night, I may be arrested to-morrow." *A* is afterwards met in Paris and heard to say, "I got off just in time, or I should have been caught."

How much of this is admissible, and under what rules, where the leaving home with intent to avoid his creditors is alleged as an act of bankruptcy?

7. Required to prove that a particular document (recent or ancient) was signed by *A*. Explain the various admissible methods of proof, classing them analytically, and commenting upon their order of admissibility and of strength.
8. *B* buys 500 tons of coal at 23*s*. per ton. He afterwards contracts to supply *A* with 1,000 tons on the 1st January at 25*s*. a ton: and to enable him to fulfil this contract, agrees to buy 500 tons from *C* at 24*s*. 6*d*. a ton. The price falls before the period of delivery, and on January 1 coals are worth in the market 21*s*. a ton. *A* refuses to accept the coals on that day when tendered by *B*. *B* is prevented from fulfilling his contract with *C*. *C* at once sues *B* and recovers damages, to pay which and the costs *B* sells 100 tons at 21*s*. The price rises again, and in March *B* sells his remaining 400 tons to *D* at 26*s*. a ton, and then sues *A* for his non-acceptance of the 1,000 tons. Show which of these values are relevant in estimating the damages in the actions between *B* and *A* and *C* and *B*: and work out the amount properly recoverable in each action.

LAW OF INDIA, &c.

H. S. MAINE, Esq.

Thursday, 9th June 1870. 10 A.M. to 1 P.M.

INDIAN SUCCESSION ACT.

1. State the various modes in which a domicil, other than a domicil of origin, may be acquired in British India.
2. Enumerate the particulars in which a privileged will may differ, as respects the mode of execution, from an unprivileged will.
3. What are the various descriptions which when applied to the objects of his bounty by a testator in his will, will cause his property to be distributed as if he had died intestate?
4. What are the rules which govern when a will purports to make two bequests to the same person, and a question arises whether the testator intended to make the second bequest instead of or in addition to the first?
5. What are the limits prescribed by the Indian Succession Act to the delay which a testator may create in the vesting of the thing bequeathed by him? Give illustrations of the rule, and state how it differs from the rule of English law on the same subject.
6. What are the principal differences (1) in the character, (2) in the legal incidents of Specific, General, and Demonstrative Legacies?
7. Give a brief account of the legal doctrine of Election, and state how the interest relinquished by a person put to his election devolves.
8. A fund is bequeathed to *A* for his life, and after his death to his daughters, with a direction that if any of them marries under the age of 18, her portion shall be settled so that it may belong to herself for life, and may be divisible among her children

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after her death. *A* has no daughters living at the time of the testator's death, but has daughters borne afterwards who survive him. What effect has the direction in the will, and for what reasons ?

9. In what cases may grants of Letters of Administration be made for Special Purposes ?

LETTERS PATENT OF HIGH COURTS.

1. When the judges forming any bench or division of the High Courts are divided in opinion, what rules determine which opinion shall prevail ?
2. Over what classes of persons do the High Courts exercise (1) ordinary original, (2) extraordinary original criminal jurisdiction ?
3. What is the matrimonial jurisdiction of the High Courts, and in what respects has it been recently extended ?
4. What authority in India has the power of amending the Letters Patent of the High Court (1) of Bombay, (2) of the North-Western Provinces ?
5. What regular civil appeals, and from what courts, lie to the High Court of Fort William ?
6. To what extent are proceedings in the High Courts regulated by the Code of Criminal Procedure ?

LAW OF INDIA, &c.

H. S. MAINE, Esq.

Thursday, 9th June 1870. 3 P.M. to 6 P.M.

PENAL CODE.

1. In what cases does the Penal Code make forfeiture of property part of the punishment of an offence ?
2. Under what circumstances does the influence of threats constitute a justification for doing an act otherwise criminal ?
3. What offences relating to religion are punishable under the Penal Code ?
4. When the Indian Penal Code provides no special punishment for abetting an offence, what rules govern the amount of punishment which may be inflicted for abetment ?
5. What are the offences which may be committed by obstructing or disobeying a public servant, and how are they punishable ?
6. What are the exceptions to the rule that the compounding of an offence is punishable under the Penal Code ? Give examples of offences which may lawfully be compounded, and state why they may be so compounded.
7. *A* untruly represents to *Z* that he will deliver to *Z* certain indigo, and thereby induces *Z* to advance money upon the faith of such delivery. What additional ingredient is required to make the conduct of *A* amount to cheating, and why ?
8. Enumerate the cases in which breaches of contract become offences under the Code.

9. What is Forgery and what are the forms of Forgery which incur the maximum punishment?
10. Define defamation, and give instances of imputations which are not said to harm a person's reputation.

LAW OF INDIA, &c.

H. S. MAINE, Esq.

Friday, 10th June 1870. 10 A.M. to 1 P.M.

HINDU LAW.

1. What are the principal legal incidents of the tenure of property in Bengal by a widow who has inherited in default of male descendants in the first three grades, and in what respects do they differ from those of a tenancy for life under English law?
2. What do you suppose to be the general principle which, in the view of Hindu law, has determined whether the distribution of property among heirs is to be *per stirpes* or *per capita?* Give examples of classes of heirs who take according to the latter system.
3. What is the doctrine of the school of Benares respecting the unequal distribution by a father, (1) of ancestral property, (2) of his own personal acquisitions? According to this school, is the rule the same in the case both of moveable and of immoveable property?
4. What is the distinction between the *Daltaka* and the *Kritrina?* In order that adoption may take place according to the first form, what conditions must be satisfied by the adoptive father and by the adoptive son?
5. Give a definition of the woman's *Stridhan*. At her death, in what order would her husband succeed to it, and in what her brother?
6. Under Hindu law, to what extent does the principle *caveat emptor* affect the validity of contracts?
7. What, in your opinion, are the rules of the Hindu law of property which favoured the introduction of testaments into the Province of Bengal?

MOHAMMEDAN LAW.

1. Explain fully what, in the Mohammedan law of Inheritance, is meant by the "increase," and what by the "return."
2. Under the Mohammedan law of Contract, what conditions must be satisfied, (1) by the subject of contract at the time of contracting, (2) by the event upon which a deferred payment is made contingent?
3. If a purchaser has made beneficial use of articles afterwards discovered to be faulty, what compensation is he entitled to from the vendor?
4. What persons can claim the right of pre-emption, and what preliminary acts must they do if they wish to claim it?
5. How can there be Ademption of Legacies under Mohammedan law?

FINAL EXAMINATION. CANDIDATES OF 1868.

6. What proprietary rights are conferred on a Mohammedan wife by the fact of marriage?
7. What are the acts of a legal nature which a minor is competent and incompetent to do without the consent of his guardian?

LAW OF INDIA, &c.

H. S. MAINE, Esq.

Friday, 10th June 1870. 3 P.M. to 6 P.M.

CODE OF CIVIL PROCEDURE.

1. By what recognised agents of parties does the Code of Civil Procedure permit applications and appearances in a Civil Court to be made?
2. How is service of the summons to be effected otherwise than personally, (1) on a defendant in the Civil Service of Government, (2) on an officer or soldier? How is a company or corporation served?
3. What are the provisions of the Code intended to secure property which is the subject of a suit from *interim* damage or alienation by one of the parties?
4. When a suit is compromised, what procedure must be followed in order that effect may be given to the compromise?
5. What are the provisions of the Code respecting, (1) commissions for local investigations, (2) commissions to investigate and adjust accounts?
6. When several judgment-creditors claim against the same party, what rules govern the distribution of the proceeds of the sale of property sold under decree?
7. Enumerate the grounds of Special Appeal, and state in what form the application for the admission of such an appeal must be made.
8. When immoveable property is sold under decree, what rules govern the payment of the purchase-money, and what are the consequences of making default in payment?

CODE OF CRIMINAL PROCEDURE.

1. What are the rules of the Code of Criminal Procedure respecting the place of inquiring into and determining, (1) cases of abetment, (2) cases of offences committed on the boundary of two or more districts?
2. What rules govern the execution of a warrant against a person who has escaped from the limits of the jurisdiction of the magistrate issuing the warrant?
3. What are the provisions of the Code respecting the mode of taking the evidence of witnesses? What power has the Local Government of modifying these rules?
4. What are the cases in which a person not charged with actual offence may be called upon to give security for behaviour, and what is the position of the person who has failed to find such security?

FINAL EXAMINATION. CANDIDATES OF 1868.

5. To what authority does the appeal lie from the following: (1) Subordinate Magistrate of 2nd class, (2) Magistrate of District, (3) Court of Session, (4) Justice of the Peace, fining European British Subject?
6. How is an accused person to be dealt with under the Code who cannot make a defence through unsoundness of mind, and how is a person to be dealt with who is acquitted as unsound in mind at the time of doing a criminal act?
7. Describe the mode of conducting a criminal trial with the help of assessors.

HISTORY AND GEOGRAPHY OF INDIA.

C. ERSKINE, ESQ.

Monday, 13th June 1870. 10 A.M. to 1 P.M.

1. Sketch the history of Indian trade with the west before the passage of the Cape of Good Hope by the Portuguese.
2. What is known as to the history of the several races and states in India to the north of the Nerbudda (including Bengal and Guzerat) during the interval between the invasions of Mahmud of Ghazni, and of Shahab ud din Ghori?
3. What is known as to the history of the several provinces and states of India to the south of the Nerbudda during the 50 years before the victory of Baber at Panipat?
4. What important events took place in the several provinces of India during the interval between the death of Alamgir II. (1759), and the return of Shah Alam to Delhi in 1771?
5. Trace the early history of the constitution of the East India Company, and the growth of its powers up to the passing of Mr. Pitt's India Bill. What led to the passing of that bill? And what were its chief provisions?
6. What was the state of India when Lord Wellesley arrived there as Governor General? And what events marked the first year of his administration?
7. Draw a map of the central provinces, illustrating some of the physical features of the country, and showing the principal towns, divisions, &c.
8. Show the positions—relatively to each other and to the capitals of the several presidencies—of the following places: Seringapatam, Calicut, Omrawati, Assirghar, Jabbalpore, Meerut.
9. What territories are crossed in passing along the southern slopes of the Himalayas, from the Barramputer to the Indus?

HISTORY AND GEOGRAPHY OF INDIA.

C. ERSKINE, ESQ.

Monday, 13th June 1870. 3 P.M. to 6 P.M.

1. Describe fully the origin, history, and results of the British operations against the Maratta powers in 1803–5.
2. Give an account of the discussions that preceded the passing of the Indian Charter Act of 1813. And of the principal changes effected by that Act.

FINAL EXAMINATION. CANDIDATES OF 1868.

3. Describe the state of the several provinces of India at the close of the Pindaree war.
4. Give a history of the First Burmese War.
5. Sketch the Indian career of Sir Charles Metcalfe.
6. What was the state of India when Lord Ellenborough arrived there as Governor General? And what events occurred during his administration?
7. Draw a map to illustrate the military operations of 1803–5.
8. Give an account—as full as you can—of the nature and present extent of the territories of Sindia, and of Holkar.
9. What provinces and places of interest, and what hills, rivers, &c., lie on the direct line between Kurachee and Rajmahal?

POLITICAL ECONOMY.

REV. J. E. THOROLD ROGERS.

Tuesday, 14th June 1870. 3 P.M. to 6 P.M.

1. Give the history of the "Theory of Value" from Adam Smith to Mr. Mill.
2. What is the incidence of a tax? Can you supply any rule which is generally sufficient to determine the incidence of taxation?
3. Is there any scientific rule which accounts for differences in wages, the word being used in its broadest sense?
4. "The tendency of improved communications is to lower existing rents." How far is this true, and in what directions is it true?
5. What general causes, and what exceptional circumstances, arrest the tendency of profits to a minimum?
6. What legislation was effected at the instance of Lord Overstone, Mr. Norman, and Colonel Torrens? What is the criticism (in general) given of this scheme?
7. Analyze the following: "Diminished wages, when representing a really diminished cost of labour, are equivalent to a rise in profits," and compare it with "Senior's law."
8. How have public debts been raised in England? Is it expedient to extinguish a great public debt, and if so, how can it be extinguished equitably?
9. What according to Mr. Mill are the most promising means for the improvement of the labouring classes?
10. Give the theory of underselling. What exceptions does Mr. Mill recognise to his own theory?
11. Compare the advantages of direct and indirect, imperial and local taxation.
12. Under what circumstances, and from what point of view, is a combination of labourers capable of an economical defence?

FINAL EXAMINATION. CANDIDATES OF 1868.

POLITICAL ECONOMY.

Rev. J. E. THOROLD ROGERS.

Wednesday, 15th June 1870. 10 A.M. to 1 P.M.

1. What, according to Mr. Mill, are the circumstances which retard his "law of the increase of production from land"? Are these circumstances, as stated by the author, exhaustive?
2. Discuss the economical effects of poor law relief. It has, according to Mr. Mill, a defence, and must have a check. State both, and compare with Adam Smith.
3. Is it always the case that permanent investments of capital are always deductions from "circulating capital," and is it the case that when they are, labour is even theoretically likely to be adversely affected?
4. In what sense is labour unproductive? Compare the opinions of the economists Adam Smith and Mill.
5. Is it possible to refer the question of the comparative merits of large and small cultivation to any positive economical rule?
6. State and examine Mr. Mill's theory of international values, and in particular as contrasted with values in home exchanges.
7. Give the views of Adam Smith and Mr. Mill on the usury laws.
8. The functions of Government. Can any rule be given for its active interference in production and trade, or for its undertaking these operations itself?
9. Expound Mr. Mill's theory of the influence which a convertible currency exercises on foreign trade.
10. The profits of a speculator. Distinguish them, and point out their origin.
11. Is there reason to believe that the maxim "Industry is limited by "Capital" is susceptible of considerable modification before it accounts for the phenomena of wages and profit?

SANSKRIT.

E. B. COWELL, ESQ.

Thursday, 16th June 1870. 10 A.M. to 1 P.M.

1. Give the Nominative, Accusative, and Instrumental Plural of अप्, and the Accusative Plural of पथिन्.
2. Illustrate by examples the changes of the final ऋ of a root before affixes beginning with a vowel.
3. Give the Singular of the Reduplicated Perfect Âtmanepada of क्षिप्, हृ and नम्.

FINAL EXAMINATION. CANDIDATES OF 1868.

4. When is the ध् of the termination of the Second Person Plural, Âtmanepada, of the Reduplicated Perfect changed to ढ्?

5. Give the Third Person Dual of the Aorist Parasmaipada of क्षिप् and प्रच्छ्, and Âtmanepada of मृ.

6. Give the Infinitive of मुच्, स्तु, रुद्, and मृज्.

7. Give the Third Person Singular of the Present Parasmaipada of the Desiderative of जि and भिद्.

Translate into Sanskrit:

a. The king, like a cloud, is the support of living beings; it is lived even if the cloud is deficient, but not if the king is.

b. He may know a friend in calamities, a hero in battle, an honest man in loan, a wife when his property is exhausted, and kinsmen in misfortunes.

c. A base man, having attained an honourable position, desires to destroy his lord, as the mouse, having become a tiger, tried to kill the ascetic.

Translate into English:

एतत्तु वचनं श्रुत्वा रामवक्त्रविनिःसृतम्।
शबरी* दर्शयामास तावुभौ तदनं महत्॥
'इह ते भावितात्मानो† गुरवो मे महाद्युते।
जुहवांचक्रिरे देहं मन्त्रवन्मन्त्रपूजितम्॥
तेषां तपःप्रभावेण पश्याद्यापि रघूत्तम।
द्योतयन्ती दिशः सर्वा वेदिः स्थितातुलप्रभा॥
कृताभिषेकैस्तैर्न्यस्ता वल्कलाः पादपेष्विह।
कृत्स्नं वनमिदं दृष्टं श्रोतव्यं च श्रुतं त्वया'॥

Rámáyaṇa.

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* A female forester.

† शुद्धचित्ताः *Comm.*

FINAL EXAMINATION. CANDIDATES OF 1868.

SANSKRIT.

E. B. COWELL, Esq.

Thursday, 16th June 1870. 3 P.M. to 6 P.M.

Translate into English:

I.

कुशलं प्रातराशस्य सर्वं मे दित्सितं त्वया ।
एहि मे रथमारोह सुखमाप्नुहि केवलम् ॥
गतश्रीकान् हृतराज्यान् कृपणान् गतचेतसः ।
अरण्यवासिनः पार्थान् नानुरोद्धुं त्वमर्हसि ॥
न वै प्राज्ञा गतश्रीकं भर्तारमुपयुञ्जते ।
युञ्जानमनुयुञ्जीत न श्रियः संचये वसेत् ॥

Parse the underlined words.

II.

स्थानमुत्सृज्य गच्छन्ति सिंहाः सत्पुरुषा गजाः ।
तत्रैव निधनं यान्ति काकाः कापुरुषा मृगाः ॥
को वीरस्य मनस्विनः स्वविषयः को वा विदेशस्तथा
यं देशं श्रयते तमेव कुरुते बाहुप्रतापार्जितम् ।
यद्वद्वानखलाङ्गुलप्रहरणः सिंहो वनं गाहते
तस्मिन्नेव हतद्विपेन्द्ररुधिरैस्तृष्णां छिनत्त्यात्मनः ॥

III.

किं भक्तेनासमर्थेन किं शक्तेनापकारिणा ।
भक्तं शक्तं च मां राजन्नावज्ञातुं त्वमर्हसि ॥
अवज्ञानाद्राज्ञो भवति मतिहीनः परिजनः
ततस्तत्प्रामाण्याद्भवति न समीपे बुधजनः ।
बुधैस्त्यक्ते राज्ये न हि भवति नीतिर्गुणवती
विपन्नायां नीतौ सकलमवशं सीदति जगत् ॥

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IV.

व्रजन्ति न निवर्तन्ते स्रोतांसि सरितां यथा ।
आयुरादाय मर्त्यानां सदा राज्यहनी तथा ॥
सुखास्वादपरो यस्तु संसारे सत्समागमः ।
स वियोगावसानत्वाद्दुःखानां धुरि युज्यते ॥
अत एव हि नेच्छन्ति साधवः सत्समागमम् ।
यद्वियोगासिलूनस्य मनसो नास्ति भेषजम् ॥

V.

इति वादिन एवास्य होतुराऋतिसाधनम् ।
अनिन्द्या नन्दिनी नाम धेनुरावृते वनात् ॥
ललाटोदयमाभुग्नं पल्लवस्निग्धपाटला ।
बिभ्रती श्वेतरोमाङ्कं संध्येव शशिनं नवम् ॥
रजःकणैः खुरोद्धूतैः स्पृशद्भिर्गाचमन्तिकात् ।
तीर्थाभिषेकजां शुद्धिमादधाना महीचितः ॥

VI.

राचिर्गता मतिमतां वर मुञ्च शय्यां
धात्रा द्विधैव ननु धूर्जगतो विभक्ता ।
तामेकतस्त्वव बिभर्ति गुरुर्विनिद्र-
स्त्वया भवानपरधुर्यपदावलम्बी ॥
निद्रावशेन भवताप्यनपेक्षमाणा
पर्यत्सुकत्वमबला निशि खण्डितेव ।
लक्ष्मीर्विनोदयति येन दिगन्तलम्बी
सोऽपि त्वदाननरुचिं विजहाति चन्द्रः ॥

VII.

एकः प्रजायते जन्तुरेक एव प्रलीयते ।
एको ऽनुभुङ्क्ते सुकृतमेक एव च दुष्कृतम् ॥
मृतं शरीरमुत्सृज्य काष्ठलोष्टसमं क्षितौ ।
विमुखा बान्धवा यान्ति धर्मस्तमनुगच्छति ॥
तस्माद्धर्मं सहायार्थं नित्यं संचिनुयाच्छनैः ।
धर्मेण हि सहायेन तमस्तरति दुस्तरम् ॥

Manu.

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ARABIC.

Colonel J. W. J. OUSELEY.

Thursday, 16th June 1870. 10 A.M. to 1 P.M.

Translate into Arabic :

The merchant then took the story, wrote it plainly in his own hand, and went up to the King and said to him, O fortunate King, I have brought a night story, and a pleasant, curious, tale, the like of which no one hath ever heard. The King on hearing these words ordered that they should summon every intelligent Ameer, and every learned man who excelled in science, and every one versed in polite literature, and each poet and sagacious person. Then the merchant sat and read the story before the King. And when the King and all who were present heard it, they wondered and approved, and they showered upon him gold and silver and jewels, and the King moreover bestowed upon him a sumptuous robe of honor, he also gave him a great city with its castles and fields, and made him one of the greatest of his Viziers, and seated him on his right hand.

What he has stated is perfectly correct: if you have promised him a reward he is justly entitled to it.

He wishes to ask forgiveness for the great crime he had committed on the former occasion.

They are excessively careless, ignorant, and idle, and it is not good to associate with such people.

ARABIC.

Colonel J. W. J. OUSELEY.

Thursday, 16th June 1870. 3 P.M. to 6 P.M.

(A.) *Translate into English :*

I. Tarikhe Timouri, from pages 48 and 49.

II. Mukamati Hariri, from pages 29 and 30.

III. Ajaeeb-al-Mukhlookat, page 115.

(B.) *Parse and analyze the following :*

خَرَّبَ لَمْ يَلْتَفِتْ تَحَتَّتَ أَرْكَانَ الْجَارِ وَ لَوْجَارِ تَخْلِيطِ الْحَمِيمِ

FINAL EXAMINATION. CANDIDATES OF 1868.

HINDÛSTÂNÎ.

FITZEDWARD HALL, ESQ., D.C.L.

Friday, 17th June, 1870. 3 P.M. to 6 P.M.

I.

a. Enumerate the various significations of آنا, when either the first or the second member of a compound verb.

b. Specify the nature and use of بهر.

c. Give a full account of چاهئے.

d. What case comes before دکھائی دیا and سنائي دیا.

e. State some of the relations denoted by کا; giving examples.

f. Illustrate some of the senses of سے.

g. Explain generally the force of هِي.

h. Detail the principal rules governing the arrangement of an Urdû sentence.

II.

For retranslation into Urdû:

a. An Arab of the desert, visiting Bagdad, saw the shop of a baker. The Arab asked the baker what would be the price of as much bread as he could eat. "Half a dînâr," replied the baker, after a calculation of human capacity. On this, the Arab paid the money, sat down by the side of the Tigris, and began his meal, moistening his bread in the water of the stream. When he had consumed bread to the value of a whole dînâr, the baker, becoming somewhat alarmed, begged him to say how long he was likely to go on eating. "Do not be impatient," returned the Arab; "for, as long as this water shall continue to flow, so "long I shall continue to eat."

b. O throng of men and beasts, you are abroad as to knowledge of created beings, a great multitude. You know not those creatures which are spiritual and effulgent, and have no connexion with embodied forms. These are incorporeal souls, pure spirits; and they dwell in the celestial regions.

HINDÛSTÂNÎ.

FITZEDWARD HALL, ESQ., D.C.L.

Saturday, 18th June, 1870. 10 A.M. to 1 P.M.

I.

For translation into English:

a. بهڑ نے کہا جِس وقت کوئي آدمي اپني سِلاحون سي دُرُست ہوکر هاتھ مین نیزہ تلوار چھُري تیر لیکر طیّار هوتا هَي هم مین سي اگر کوئي بهڑ جاکر اُسي کاٹتي هَي اور سُوئي کِي نوک کي برابر ڈنک چُبھوتي هَي اُس وقت کیا حال اُس کا تباہ هوتا هَي * بدن پھُول جاتا هَي هاتھ پاؤن سُست هو جاتي هَین حرکت نہین کر سکتا

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بلکہ اِس سي اپني ڈھال تلوار کي بھي خبر نہين رهتي * بادشاہ نے کہا سچ هَي ۞ مکّهي نے کہا جِس وقت اِنسانون کا بادشاہ نہايت حشمت و عظمت سي تخت پر بيٹهتا هَي اور دربان چَوکيدار نہايت جانفشاني اور خَيرخواهي سي گِرد بگِرد اُس کي کهڑي هوتي هَين کہ کِسي طرح کا رنج اور اذيّت اُس کو نہ پہُنچي اُس وقت اگر ايک مکّهي اُس کي باورچيخاني يا جاضرور سي نِکلکر نجاست سي تمام جِسم آلُودہ اُس کي بدن اور کپڑي پر جاکر بيٹهتي اور ايذا ديتي هَي هرگز اِتني قُدرت نہين پاتي کہ اُسي بچا سکين * بادشاہ نے کہا يہہ سچ هَي ۞

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b. بادشاہ نے فرمايا کہ تُم اپنے اپنے حسد کو بيان کرو * ديکهون کون کِس مرتبے مين هي * اُس کے مُوافِق يے اشرفيان تُمهين حِصّہ کر دون * ايک نے کہا مُجهے حسد اِس قدر هي جو هرگز نہين چاهتا هون کہ کِسي پر احِسان کرون تا وہ خوش هووے * دوسرے نے کہا کہ تو نيک مرد هي اور ميرے حسد کا ايک پاسنگ تُجهہ مين نہين * مُجهے اِتنا حسد هي جو ديکهہ نہين سکتا هون کہ کوئي کِسي پر اِحسان کرے يا اپنا مال کِسي کو بخشے * تيسرے نے کہا کہ تُم دونون حسد سے اصلاً بہرہ نہين رکهتے هو * تُمهارا صِرف دعوےٰ بيمعني تها * مين ايسا هون کہ هرگز روادار نہين جو مُجهہ سے کوئي بهلائي کرے ۞ بادشاہ نے انگُشتِ حيرت کو کاٹا اور اُن کي گُفتگو سے مُتعجّب هوکر کہا کہ تُمهاري باتون سے ثابِت هوا کہ اِن اشرفيون مين سے تُمهين نہ ديا چاهئے * بلکہ هر ايک کو مُوافِق گُناہ کے سزا ديني ضرور هي ۞

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c. یار و اقربا فریبہ کي دلپسند باتیں سُنکر ملامت سے باز آئے اور اُس کو اپنا پیشوا بناکر اس کي پیروي کرنے لگے * فریبہ تھوڑے دِنون مین عقلمند اور خُداشناس مشہور هوا * وهان سے نزدیک ایک جنگل تھا * کامجوے نامے ایک شیر وهان کے درندون کا بادشاہ تھا * ایک دِن وہ اپنے ارکانِ دولت سے هر طرح کي باتین کرتا تھا * اِس مین فریبہ کي خُداپرستي و دوراندیشي اور عقلمندي کا ذِکر بهي درمیان مین آیا * مجلس کے چھوٹے بڑے یکزبان هوکر تعریف اُس کي کرتے تھے یہان تک کہ بادشاہ کو فریبہ کے دیکھنے کا اِشتیاق هوا * کسي کو اُس کے بُلانے کو بھیجا * وہ بموجب بادشاہ کے حُکم کے کہ حُکمِ خدا کے مانند هي حُضور مین حاضِر هوا * بادشاہ نے مہرباني اور الطاف فرماکر بیٹھنے کا حُکم کیا اور اُس سے همکلام هوا * بعد گُفتگو کے فریبہ کو عقلمندي مین دریاے مُحیط سا اور ظاهِر و باطِن کے عالم مین ایک گنجِ عظیم کے مانند پایا * کامجوے کو صُحبت اُس کي خوش آئي * همیشہ بُلا بھیجتا اور اُس کي دانِشمندي کي باتون سے فائِدہ اُٹھاتا * کِتنے دِنون کے بعد اُس سے خلوت مین کہا کہ اي فریبہ تو داناي و کارداني مین یکتاے عصر هي * مالي و مُلکي کارو بار مین تُجھ سا شخص چاهئے * مین چاهتا هون کہ تُجھے اپنا رُکنِ دولت کرون اور تمام کارو بار تُجھے سونپون * بادشاهون کو لازم هي کہ اپنے کامون کے سرانجام کرنے کو نیکذات عقلمند مُقرّر کرین ۞

HINDÛSTÂNÎ.

FINAL EXAMINATION. CANDIDATES OF 1868.

FITZEDWARD HALL, ESQ., D.C.L.

Saturday, 18th June, 1870. 3 P.M. to 6 P.M.

I.

For translation into English:

a. اِتّفاقاً ایک دِن وُہ کِسی جنگل مین شِکار کھیلنے گیا کہ اِتنے مین ایک شیر غُرّاتا ہوا سامہنے سے نظر آیا * یہہ اندیشہ کرکے اپنے جي مین کہنے لگا کہ اگر خنجر مارتا ہون تو یہہ حیوانِ بےزبان زخمي ہوتا ہي یا مارا ہِي پڑتا ہي * اور اگر چھوڑ دیتا ہون تو مین جان سے جاتا ہون * یقین ہي کہ یہہ لپکے اور مُجھے کھا جاوے * اِن دونون مُشکِلون پر نظر کرکے یہہ خِیال کیا کہ اگر یہہ میرا گوشت کھاکر اپنا منوا تازہ کرے تو اِس بات سے اور کون سي بات بِہتر ہي * تُجھ کو ثواب ہوگا اِس کا پیٹ بھریگا * اِس بات کو سوچکر اُس کے آگے گیا اور کہنے لگا کہ اي شیرِ صحرائي میرا گوشت اور میرے گھوڑے کا گوشت حاضِر ہي * جِس کے گوشت کو بخوبي چاہتا ہو اُس کے گوشت کو کھا اور اپنا پیٹ بھرکر جہان چاہے وہان چلا جا * یہہ بات سُنتے ہِي وُہ اپنا سِر جُھکاکر حاتِم کے قدمون پر گِر پڑا اور اپنی آنکھین اِس کے تلون سے ملنے لگا *

b. کہتے ہین کہ مسلمانون کے کسی شہر مین کئي شبانہ روز یکسان مینہہ برسا * ایسي جھڑي لگي کہ وہان کے باشندون کو کار و بار دنیاوي کرنا مشکل پڑا * راہ آمد و شد کي مسدود ہوئي * حویلیان اور مکان ڈھہنے لگے * سب کے جي مین خطرہ پیدا ہوا * نجومي اور جوتکھي کہتے تھے کہ ستارون کي گردش سے یون بچار مین ٹھہرتا ہي کہ تمام یہہ شہر پاني کي طوفان سے غرق ہو جاوے * یہہ سنکر اور بھی وہان کے رئیس اور ساکن اعلا ادنا

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غني غريب نے حواس کھوے اور جان و مال سے ہاتھ دھوے رونے پیٹنے اور توبہ دھاڑ مچانے لگے * جب نہایت بیقرار ہوے جمع ہوکر سلطان کے روبرو گئے اور احوال اپني مایوسي کا عرض کیا * پادشاہ بڑا عادل اور نیکخصلت اور خداترس تھا * شہروالون کو بہت سي تسلّي دلاسا دیکر کہنے لگا * خدا کے کرم و فضل پر نظر رکھو * وہ کریم ہي آخر رحم کریگا * یہہ کہکر اُنھین تو رخصت کیا اور آپ اُسي وقت اُٹھکر خلوت مین گئے اور خاک پر پیشاني رکھکر نہایت عاجزي سے خدا کي جناب مین دعا مانگنے لگے ۞

c. ہندي کتابون مین اودھ کا نام اجودھیا * راجا رامچندر کا مولد و تختگاہ ہي * اسی جہت سي ہندو اس کو بڑا معبد جانتي ہین کیونکہ راجا مذکور عالیتزاد و نیکنہاد تھا * ساتھ اس کي دولت ظاہري و باطني سي بھي مالامال عجائب غرائب افعال اسي وقوع مین آئي * اور بہت سي امور نادر اس نے دکھائي * چنانچہ شور دریا پر پل باندھا اور انگنت بندر ریچھ کي فوج لیکر لنکا پر چڑہ گیا * پھر راون کو مارکر اپني جورو کو قید سي چھڑا لایا * اسي قبیل سي اکثر حالات اس کي رامایں مین لکھي ہین * غرض شہر مذکور ایک سو اٹھتالیس کوس کي طول اور چھتیس کوس کي عرض مین بستا تھا اور اس کي سواد مین جو کوئي خاک چھانتا سونا پاتا * ایک کوس پري اس کي گھاگھرہ سرجو سي ملکر قلعي کي تلي جا نکلي ہی * اور قریب شہر کي دو بڑي بڑي قبرین ہین * طول ان کا سات سات آٹھ آٹھ گز سي کم نہین * عوام ان کو حضرت شیث و ایوب سي منسوب کرتي ہن * بنابر اس کي پنجشنبي کو اکثر لوگ وہان جاکر فاتحہ پڑھتي ہین ۞

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II.

For translation into Urdû:

The pleasure of a search, like that of a hunt, lies in the searching, and ends at the point at which the pleasure of certitude begins. Its elements are altogether foreign to those which go to compose the serene satisfaction of certitude. First, the successive steps of discovery which attend on an investigation are continual and ever-extending informations, and pleasurable, not only as such, but also as the evidence of past efforts, and the earnest of success at the last. Next, there is the interest which attaches to a mystery not yet removed, but tending to removal, —the complex pleasure of wonder, expectation, sudden surprises, suspense, and hope, of advances fitful, yet sure, to the unknown. And there is the pleasure which attaches to the toil and conflict of the strong, the consciousness and successive evidences of power, moral and intellectual, the pride of ingenuity and skill, of industry, patience, vigilance, and perseverance.

HINDÎ.

FITZEDWARD HALL, ESQ., D.C.L.

Monday, 20th June, 1870. 3 P.M. to 6 P.M.

I.

a. Of what parts of speech have certain so-called conjunctive participles the powers, in Hindî?

b. Give an instance of a passive neuter verb.

c. Illustrate the regimen of nominal verbs.

d. How is कहीं used in idioms?

e. Specify some expressions similar to दिखाई देना.

f. Mention some phrases in which बात is understood.

g. What peculiarity is there in the government of सीखना and सिखलाना?

h. After what classes of substantives is से generally omitted?

II.

For retranslation into Hindî:

a. They whose lives are closing neither smell the stench of an expiring lamp, nor hearken to the counsel of a friend, nor discern the star Arundhatî.—A malicious man may be a kind speaker; but that is no argument for reposing confidence in him. There is honey on

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the tip of his tongue, and there is deadly poison in his heart.—If a good man be wroth, still his mind undergoes no change; as you cannot heat the water of the ocean with lighted straw.

b. Two opposite opinions cannot both be right; and there can be no good, while there may be much harm, in holding a wrong opinion. It is therefore reasonable that intelligent men, when they differ in opinion, should amicably discuss their difference. This, however, cannot be satisfactorily accomplished till the proponent and the opponent clearly understand the measure of their difference. Disagreement, moreover, commences only where agreement ceases. It is, accordingly, desirable, in every case, to determine exactly, as best one can, how far the agreement extends; so that, when controversy is at the height, we may not dwell on points which are not, in fact, matters of disagreement.

HINDÎ.

FITZEDWARD HALL, ESQ., D.C.L.

Tuesday, 21st June, 1870. 10 A.M. to 6 P.M.

I.

For translation into English:

a. जोतिषियों ने कहा कि इस का नाम जरासंध ऊआ औ यह बड़ा प्रतापी औ अजर अमर होगा। जब तक इस की संधि न फटेगी तब तक यह किसी से न मारा जावेगा। इतना कह जोतिषी बिदा हो चले गये। यह बात श्रीकृष्ण जी ने मन मन सोच औ अपना बल दे भीमसेन को तिनका चीर सैन से जताया कि इसे इस रीति से चीर डालो। प्रभु के चिताते ही भीमसेन ने जरासंध को पकड़कर दे मारा औ एक जांघ पर पांव दे दूसरा पांव हाथ से पकड़ यों चीर डाला कि जैसे कोई दातन चीर डाले। जरासंध के मरते ही सुर नर गन्धर्व ढोल दमामे भेर बजाय बजाय फूल बरसाय बरसाय जैजैकार करने लगे औ दुख दंद जाय सारे नगर में आनन्द हो गया। उसी बिरियां जरासंध की नारी रोती पीटती आ श्रीकृष्णचंद्र जी के संमुख खड़ी हो हाथ जोड़ बोली कि धन्य है धन्य है नाथ तुम्हें जो ऐसा काम किया कि जिस ने सरबस दिया तुम ने उस का प्रान लिया।

b. सुमतिसिंह को बहन का वियोग और पिता के दुर्गति जाने का सोग ऐसा व्यापा कि आंखों से टप टप आंसू पड़ने लगा। बैठा न गया। उठकर बाहर चला गया। कचहरी में सुना कि काशी से कोई बड़े धुरंधर अद्वितीय महान पण्डित जिन्हों ने छओं शास्त्र देख लिये हैं और वेद और वेदाङ्ग सब के सब छान डाले हैं किसी कार्य के निमित्त यहां आकर बाबू जगतविनोदसिंह के घर में टिके हैं। सुमतिसिंह को अपने बाप की वह बात याद आई जो उस ने कहा था कि जनमती लड़की के मारने से परलोक क्या बिगड़ेगा। मन का संदेह निवृत्त करने को उसी दम पण्डित जी के पास चला गया। वीरसिंह भी वहां बाबू जगतविनोदसिंह से मिलने को आया था। सुमतिसिंह ने पण्डित जी का प्रणाम करके कुछ भेट साम्हने रखी और हाथ जोड़के निवेदन किया कि महाराज मेरे मन में एक बड़ा संदेह उत्पन्न हुआ है। आप कृपा करके उसे दूर कीजिये।

c. तुष्टिकारक वृष्टि ही है जो पृथ्वी को उपजाऊ कर देती है और कोमल लता जिन को भूखे पशु खाते हैं उन को उसे वस्त्र के सदृश ओढ़ लेने की शक्ति देती है। इसी लिये गरम वायु से पानी सुखवाया जाता है और जब वह ठंढी हो जाती है तब आनन्दजनक धारा में फिर उंड़ेलवाया जाता है। ईश्वर तत्ती और जूड़ी बयार को पृथ्वी की पृष्ठ पर आगे पीछे बहने को और कभी कहीं और कभी कहीं एकत्र मिल जाने को भेजता है। इस का यह फल होता है कि वृष्टि आकर भूमि को भिगो देती है और वृक्षों की जड़ की पुष्टता के लिये उसे कोमल और उपजाऊ रखती है। फिर जो स्तम्भ और पल्लव वायु में फैले रहते हैं उन को घाम आकर गरम और पुष्ट करता है। पृथ्वी के निरक्ष के निकट ऐसे स्थान हैं जिन में बहुत काल तक कुछ भी पानी नहीं बरसता। इन स्थानों में जन्तुओं को बहुधा बड़ा दुख भोगना पड़ता है। गाछ बरन कड़े गोखुरू तक झुलसकर सूख जाते हैं। नदियां सूख जाती हैं और सारा देश मीलों तक धूल से भरी हुई बड़ी सड़क के सदृश दिखलाई पड़ता है। सहस्रों चिड़ियां बनैले पशु और गोरू मर जाते हैं।

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HINDÎ.

FITZEDWARD HALL, ESQ., D.C.L.

Monday, 21st June, 1870. 3 P.M. to 6 P.M.

I.

For translation into English:

a. एक भले गृहस्थ ने मार्ग से जाते हुए एक मनुष्य को देखा जो एक घोड़े पर चढ़े हुए जाता था और बड़ी निर्दयता से अपने घोड़े को पीट रहा था। जब उस को उस गृहस्थ ने ऐसी निर्दयता के विषय में कुछ निषेध किया तो उस ने यह उत्तर दिया कि क्या मुझ को अधिकार नहीं कि मैं अपनी ही वस्तु को जैसा चाहूं काम में लाऊं। ऐसा कहके उस ने और भी दो चाबुक उस की पीठ पर लगाए। जब उस गृहस्थ ने ऐसी उस की उन्मत्तता देखी तो क्रोध से संतप्त होके हाथ की छड़ी से दो तीन प्रहार किये। तब वह डरपोकना मनुष्य शरीर को सुकड़ाते और मन में कुड़कुड़ाते हुए उस से बोला कि मुझ पर छड़ीचलानेवाला तू कौन। तो गृहस्थ ने उत्तर दिया कि क्या यह मेरी छड़ी नहीं। और इस लिये क्या मुझ को अधिकार नहीं कि मैं अपनी वस्तु को जैसा चाहूं काम में लाऊं।

b. सब जीवों के उत्पत्तिकाल में जो जो वस्तु आवश्यक होती हैं वे वे उस समय पै उपस्थित होती हैं। मनुष्य को ही देखो कि उस के उत्पन्न होने से दो तीन महीने पहले उस के आहार के लिये दूध उस की मा के स्तनों में आप से आप आ जाता है। क्या यह थोड़ी बात है। छोटे लड़के के दांत नहीं होते। यह बात भी विना उस की युक्ति नहीं। क्योंकि जो दांत होते तो उसे दूध पिलाते में उस की मा को क्लेश होता। इस के सिवाए होते भी तो क्या काम के होते। जो वस्तु व्यर्थ है उस के बनाने से क्या प्रयोजन। बछड़े के पैदा होने के समय सींग नहीं होते। उस का

भो यही कारण है कि उन के होने से दूध पिलाते में उस की मा दुख पाती। ईश्वर ने सब जीवों को एक प्रकार का ज्ञान दिया है। यद्यपि वह बुद्धि नहीं है पर उसे लोग बुद्धि कहते हैं। और बुद्धि तो मनुष्य को छोड़ और किसी जीव को ईश्वर ने नहीं दी है क्योंकि बुद्धि उसे कहते हैं कि जिस के बल से और और बातें भी अपने मन से निकल सकें। यह बात मनुष्य को छोड़ और किसी जीव में नहीं पाई जाती।

c. किसी समय में सब इंद्रियां मिलकर पेट का दोष लगाने लगीं इस तर्क से कि वह निठल्ला बैठकर सब इंद्रियों की कमाई खाता है और उस से कुछ हमारा प्रयोजन भी नहीं निकलता। इस कारण सब इंद्रियों ने काम करने से हाथ खींच लिया और निकम्मे पेट की टहल करनी छोड़ दी इस तरह से कि पांवों ने ठौर ठौर चलना फिरना छोड़ दिया हाथ मुंह ने भोजन पहुंचाना बंद कर दिया नाक ने सूंघना आंखों ने देखना और कानों ने सुनना इसी तरह सब इंद्रियों ने अपनी अपनी टहल छोड़ दी। जब कुछ समय तक पेट खाली पड़ा रहा तब प्रत्येक इंद्रिय को दुख पहुंचने लगा इस तरह कि हाथ पांव जीर्ण हो चले आंखें अंधी हो गईं और सब शरीर शिथिल और दुर्बल पड़ने लगा। तब पेट ने कहा कि अय कमसमझ इंद्रियो अब तो तुम को जान पड़ा कि जो कुछ तुम्हारे द्वारा मुझ को भोजन पहुंचता था वह यथार्थ में तुम्हारे ही उपकार के लिये था और मुझ को जो भोजन पहुंचता था उस को मैं ने केवल अपने ही खरच में नहीं उठाया बरन लहू बनाने के लिये उसे पचाया है। फिर उस को नसों में होकर तुम्हारे स्थूल होने के लिये तुम सब इंद्रियों को बांटा है। यद्यपि तुम सब मेरे खिलाने पिलाने में लगे रहते हो परंतु इस टहल के पलटे में मैं किस किस मिहनत से उस लहू को तुम्हारे निमित्त बनाकर नसों में होकर सदा बहाता रहता हूं जिस से तुम सब सुखी और हरी भरी रहती हो और तुम्हारा सब सुख और पालन का ठाट बाट मेरे ही कारण से बंधा है।

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II.

For retranslation into Hindî:

The woods of the New World remain to tell the wanderer what our old forests were, when he ventures to break into the stillness of their deep repose. There the profound silence declares the vast extent of the woodland. Every sound is heard,—the distant running of the river, and the strange voices of the woods, the notes of birds, and the cries of wild creatures, some joyous and musical, others harsh and terrible, or plaintive and melancholy. All these are fitted to compose the mind to thoughtful meditation; but, above all, the ancient trees themselves, with their heavy nodding leaves and wrinkled bark, seamed with the course of many years, are so many preachers, and, like white-headed old men of former days, seem to say that an eternal repose of yesterday is gone before, and a morrow of eternal peace is yet to come.

TELUGU.

J. GOLDINGHAM, ESQ.

Monday, 20th June 1870. 3 P.M. to 6 P.M.

1. Translate the following, and give two instances yourself, illustrating brevity of expression in Telugu :—
   At present the day (is) long and the night short.
   If you are told to come (you are) angry, if told to go (you are equally) angry.
2. Translate the following, and give two instances yourself, one in which the Telugu conjunction " and " is used, and one in which it is omitted, though understood.
   Both to that man and to this man.
   The wife and children.
   Master and mistress.
3. Translate the following into Telugu, using the affix O' in each case.
   Whether you or your brother.
   Possibly that very man.
   Perhaps thou didst go.
4. Give instances of nouns in combination with adjectives in the following instances :—
   1. Where అయిన is the adjective form.
   2. do. ఎ do.
   3. do. ఓ do.
5. Translate the following, and explain what occurs to you as the peculiarity of idiom in Telugu in each case :—
   A cow of his.
   Four guns of mine.
   These fruits are from that garden.
   This is the upper one, that is the lower one.
   Those things are his.
6. Give a sentence of five or six lines, in which కాదు and లేదు are respectively used.

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7. Give two instances yourself illustrating the use of the past relative participle, and translate into Telugu the following :
   Do not mention to anyone the matter about which I wrote the letter.
   It must be a person who knows, who can tell the reason for writing the letter.
8. State in Telugu the four points of the compass, also the component parts of a rupee, as $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.

Re-translate into Telugu :—

When do the ryots begin to cultivate their wet lands ? In the month of July they plough and manure the fields, and after they are well moistened they sow their seeds.

Excepting the last or youngest, the other three attained great proficiency in the knowledge of the Vedas, the Shasters, and in business matters. In this way each by his learning, obtained much respect in the assemblies. As the youngest knew nothing of the sciences, not even a little, he was in the habit of doing whatever those three told him to do.

TELUGU.

J. GOLDINGHAM, ESQ.

Tuesday, 21st June 1870. 10 A.M. to 1 P.M.

I.

Translate into English :

నేటిరోజున ఇంతమట్టుకు చాలును, తలమ్మా రేపు చదువుదు వాన్ను.

నాతో మీరు ఎల్లప్పుడు తెనుగే మాట్లాడవలెను.

తెనుగు మాట్లాడడములో నాకు తప్పులువస్తే మీరు దిద్దండి.

నాకు ఒక కథ చెప్పండి.

నేను చదవడమునకు ప్రమయినా అర్జీలు తేచ్చినారా.

ఈ అర్జీల దస్తూరీ మంచిదికాదు.

అయ్యా ఉత్తర దేశములో ఎల్లప్పుడున్ను ఈలాగే వ్రాస్తు వాన్నారు ; బుకానొకప్పుడు తాను వ్రాసిన అక్షరాలే తాను చదవడము కష్టముగా ఉంటున్నది.

FINAL EXAMINATION. CANDIDATES OF 1868.

తర్వాత మాత్రలి, సింహాసనముతోకూడా విక్రమార్కుణ్ణి రథముమీద కూర్చుండ బెట్టుకొని, భూలోకమునకు పోయి, ఉజ్జయినీ నగరములో ప్రవేశపెట్టి, అతనిచేత అనేకములయిన బహుమానములు పొంది, తిరుగా స్వర్గలోకమునకు పోయెను. అప్పుడు విక్రమార్కుడు, భట్టి మొదలయిన మంత్రులతోను నున్న పురోహితులతోనున్న ఆప్తజనులతోనున్న తాను యిం ద్రలోకమునకు పోయినప్పుడు అక్కడ జరిగిన వర్తమానము చెప్పి, బ్రాహ్మణులను పిలిపించి, శుభలగ్నము విచారించ నియమించి, వారు విచారించిచెప్పిన శుభలగ్నమందు షోడశమహా దానములు చేసి, పంచమహావాద్యములు మ్రోగగా దేవేంద్రదత్తమైన సింహాసనమెక్కి, లోగడ భట్టిచెప్పిన ప్రకారముగా వయ్యేండ్లు రాజ్య పరిపాలనమున్ను వయ్యేండ్లు భూసంచారమున్ను చేసెను. తర్వాత, ఉజ్జయినీ నగరములో మహోత్పాతములు పుట్టినందున, విక్రమార్కుడు, తనకు జీవితకాలము ముగిసె గాబోలును; అయితే కాళికాదేవి వరమిచ్చినప్పుడు చెప్పినమాట, పదమూడునెలల చిన్నదానికి పుట్టిన వాడు నిన్ను చంపునుగాని వాడు వినాగా మఱియెవరున్ను నిన్నేమిని చెయ్యలేరనిగదా! అటువంటివాడు ఇప్పుడు ఎక్కడపుట్టి ఉన్నాడో విచారించవలెను.

అయితే, వాటిలో పుంచిన నగలు యావత్తు పుండేది లేనిది తెలుసుకొనే నిమిత్తం, చాదూకుల తొళ్ళాలు తీయించపల సినదని, సీతమ్మగారి దగ్గిరికి నేను వర్తమానము పంపిస్తి, ఆమె అట్లా వల్లపడదని, చెప్పి పంపించి, ఆ చాదూకులను తాము తెప్పించుకొని, వాటి తొళ్ళములు తీయించి చూచి, రా

జా ్మె నరుగారి నగలు యేమి, ఆమె తొలూకు నగలు యేమి, విస్సన్న తొలూకు నగలు యేమి, అన్ని వున్నవని చెప్ప, వాటిలో మై నరుగారి నగలు మాత్ర ం నా వశాన యిచ్చినం దున, నేను అవి తీసుకొని నా పరంగా వుంచి, మీ తొలూకు నగలు కూడా యిచ్చి నట్టైతే నా వరంగానే వుంచుతానని ఆ మెతో చెప్పనాను. అందుకు ఆమె, ఆ నగలు మా అక్క– గారి న పెకమ్మ గారు మాకు యిచ్చి పోయినవనిన్ని, అవి మీ యిలాకాలో చేరడానకు యెంతమాత్రము నిమిత్తము లే దనిన్ని, చెప్పనందుచేత, ఆ నగలయొక్క–నున్ను విస్సన్న తొ లూకు నగలయొక్క–నున్ను జావితొలు వ్రాసుకొని, అక్క–ద నుంచి లేచి వచ్చినాను.

Translate into English:

[Lane's Official Documents, No. 13. (the last three lines of p. 18 and six lines of p. 19.)]

II.

Translate into Telugu:

On our examining the records and the decree of the original court, it appears that it has been decided by them, that as the defendant and his brother jointly possessed the land for a long time, it should continue in like manner (to be enjoyed by them) for the future also, if not they should enjoy their fields separately. As this decision seems to be just, we confirm the decree of the lower court.

FINAL EXAMINATION. CANDIDATES OF 1868.

TELUGU.

J. GOLDINGHAM, ESQ.

Tuesday, 21st June 1870. 3 P.M. to 6 P.M.

I.

Translate into English:

మఱునాడెప్పటివలె నా భోజరాజు సింహాసనము నెక్కవచ్చుచుండగా పంధొమ్మిదవ సోపానమందుండే ప్రతిమ యతనిఁజూచి, ఓరాజా! విక్రమార్కునికి గలిగిన సాహసాది గుణములు కల వాడేగాని, అన్యుడి సింహాసన మెక్కఁగూడదు; ఆయిన గుణము లెటువంటివంటే చెప్పవినుమని యిట్లనియె.

విక్రమార్క మహారాజు రాజ్యపాలన చేయుచుండగా వసంతుడనే బోయవాడువచ్చి, ఒక డేగను దెచ్చి, విక్రమార్కునికి కానుకగానిచ్చి, దర్శనము చేసుకొని, అయ్యా! నేను ఎనభైయేండ్లవాఁడ్ని అయినాను; భూమి అంతా వేటలాడినాను; నేనిటువంటి వింత నెన్నఁడున్నుఁ జూడలేదు; వినలేదు; ఎచుంటే; ఎక్కడిదో ఒకపంది కొండవలె నెరిగియున్నది; ఎప్పటంటే అప్పటు బోయపల్లెలమీఁద వచ్చిపడి, యింట్లనీన్ని పాడుచేస్తున్నది; పొలములలో నేమిపైరు నెట్లుకొన్నప్పటికిన్ని బొత్తిగాసర్దలించి వేస్తున్నది, అసహ్యవారిని తఱుముకొనివస్తున్నది; దాన్ని బాణముతోవేతామని గుఱిపెట్టివేసే ఆసఱుకినిలవక మాయమైపోతున్నది; అనగా, రాజు విని, ఆశ్చర్యపడి, ఆబోయను వెంటబెట్టుకొని, అడవికిపోయి, కనిపెట్టుకొనియుండగా, పందివచ్చెను. దాన్ని విక్రమార్కుడు తఱుముకొనిపోగానే, అదియొక పర్వతము సుహాచొచ్చెను. దానివెంబడించి రాజును సుహాచొచ్చెను.

FINAL EXAMINATION CANDIDATES OF 1868.

అదే మేరకు తమ్మున నమ్మి, తమ పనుల నిమిత్తమై యిక్కడ వున్నానే గాని, యీ నపుకరి నిమిత్తము వొక ఘణమై నా వుండవలసిన అగత్యము నాకు యేమాత్రమున్నులేదు. తమ పనులలో లేనివారికిన్ని, తమ్మున కొంచెముగా నమ్మిన వారికిన్ని, తమవల్ల యిదివరకు అనేక గొప్పపనులు అయి పారు కృతార్థులయినారు. నాకున్నమీరు చేయవలసిన ప్రయత్నములు శానా చేసినారు. నా దురదృష్టము వల్ల అనేక ఆటంకములు సంభవించినవి. యిప్పట్లో తమకుగొప్ప ప్రభుత్వము అయి, తమసముఖములో నా సంగతి మనివి చేసుకోవడానకు సమయము గనుక, మనివి చేసుకొన్నాను. తమరు యిక మీదట యెప్పటికిన్ని గొప్ప ప్రభుత్వాన్నే బాధిపుంచారు గనుక, నా దురదృష్టము యింతటితోనే వదిలి పోయినదని నమ్ముతున్నాను.

Translate into Telugu:

As the wall that is around my ground has fallen, in consequence of the rain, I was getting it built by labourers, when the first defendant, who owns some ground at the back of my house, on the plea that I was building a wall on his ground, arrested the work. I was in my house, and on hearing this I came out and said to the first defendant, produce and look at the title deeds for your ground, and if it proves true that the land on which I am building a wall is yours, I will pay you any damages you demand.

BENGALI.

Rev. Dr. MULLENS.

Wednesday, 22nd June 1870. 3 P.M. to 6 P.M.

1. Show how the feminines of nouns and adjectives are formed. Give examples, and note exceptions.

2. Decline the pronouns আপনি and মুই. What rule is followed in the use of the Bengali relative pronoun, and wherein does it differ from the English idiom?

FINAL EXAMINATION. CANDIDATES OF 1868.

3. How are the potential and subjunctive moods formed? Translate the following sentences: "Has he heard the story? He may "have heard it. I fancy he must have understood me. If I "had told him, he would not have obeyed me."

4. Write down the days of the week. Put the following numbers into Bengali figures, 2364; 587; 610; 1578. Translate *sixty-two, fifty-seven, ninety, eighty-two, twenty-four, twenty-six; one-fourth, three and a half, four and three-quarters.*

5. What are the ordinary uses of the locative case? Translate the following sentence: "A fairy has carried away your daughter, "and placed her on an inaccessible hill."

6. Which of the Sanskrit participles are commonly used in Bengali? What new form has become popular in recent years? Translate the following words: *living, increasing, lying down, glaring, being spoken.*

7. Translate the following sentences idiomatically:

a. There has been a great fire in Roum, and three hundred people have lost their lives.

b. The boy spent threepence in mangoes.

c. The king said to the fisherman, "Where did you catch the "fish, containing the ring?" The fisherman replied, "O king, "in the river to which the princess ordered me to go."

d. Buy me three pounds of butter and two pounds of gunpowder.

8. Retranslate into Bengali the following passages:

a. Although Sita uttered all these words, yet Ram had no pity. On the instant he caused the furnace to be prepared. Sita having gone round the fire-pit a hundred times, called on the fire-god, and addressed him thus: "O purifier! O destroyer of "sin! thou can'st see all good and evil. If I am pure, then "from thee shall I suffer no harm; but if any stain whatever "be in my body, thou wilt at once reduce me to ashes."

Nabanári, p. 51.

b. [Bengali Petitions (English Translation), No. 3., p. 2., from beginning down to "being ever collected."]

c. Had the bill of Mr Fox been passed, the Company would no longer have been connected with India. But the king did not approve it, and the prime minister was dismissed. Mr. William Pitt was appointed to the office of minister in his room. He was then twenty-four years of age; but he possessed extraordinary talents for the conduct of affairs. He brought in a new bill for the government of India, which parliament accepted.

Bángálár Itihása, p. 112.

BENGALI.

FINAL EXAMINATION. CANDIDATES OF 1868.

Rev. Dr. MULLENS.

Thursday, 23rd June, 1870. 10 A.M. to 1 P.M.

Translate into English :

a. এক সহরেতে তিন জন যুবা শাস্ত্রেতে অতিবিদ্বান্ ছিল, তাহারা তিন জন কাবুল নগরে আসিয়া সয়দাগরকে কহিলেক, যে তোমার কন্যা বিদ্বান্ স্বামী চাহেন; ইহাই শুনিয়া আমরা তিন জন আসিয়াছি. আমারদের বিদ্যার পরিচয় লউন. এক জন জ্যোতিঃশাস্ত্রেতে পণ্ডিত; যাহা হারায় যে স্থানে থাকে ও যাহা হইবেক সেই সব কথা কহিতে পারেন. দ্বিতীয় জন শিল্প শাস্ত্রে বড় বিদ্বান; এমন কাষ্টের অশ্ব নির্ম্মাণ করিতে পারে যে সে অশ্বোপরে এক ব্যক্তি আরোহণ হইয়া, যেখানে যাইতে ইচ্ছা করে, সেই খানে বায়ুর ন্যায় গতিতে পহুঁছিতে পারে. তৃতীয় ব্যক্তি তীরন্দাজীতে অতি উপযুক্ত; যাহাকে বাণ মারে তাহার শরীর ছিন্ন ভিন্ন করে; তাহাতে তাহার তিলার্দ্ধ স্থান থাকে না; আমারদের তিন জনের বিদ্যার কথা এই কহিলাম. ইহার মধ্যে যে তোমার কন্যার মনোনীত হয়, তাহাকে স্বামী করুণ.

Forbes's Bengali Reader, p. 32.

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b. আমাদিগের রাজপুরুষেরা পরিণাম বিবেচনা করিয়া যে কাজ করেন, তাহা প্রশংসার নহে, মানুষ সত্ত্ব ও তীক্ষ্নবুদ্ধি সম্পন্ন হইলেই এরূপে কাজ করিবেন, ইহা স্বভাবসিদ্ধ। কিন্তু তাঁহারা সময়ে সময়ে বর্ব্বরের ন্যায় যে কাজ করেন, ইহা অতিশয় দুঃখ ও বিস্ময়ের বিষয়। "ছুতে পশুন্তি বর্ব্বরাঃ।" বর্ব্বরদিগের ভবিষ্যদ্দর্শন শক্তি নাই। ফল হইয়া না গেলে তাহারা বুঝিতে পারে না। যখন নীলকর ও চা-করদিগকে অবৈতনিক মাজিষ্ট্রেটের পদ প্রদান করা হয়, তখন এদেশীয় সমাচার পত্র সম্পাদক মাত্রেই "ডাইনের কোলে সমর্পণ করা হইল" বলিয়া প্রতিবাদ করিয়াছিলেন। কিন্তু রাজপুরুষেরা তৎকালে সে বাক্যে কর্ণ পাত করেন নাই। সম্প্রতি আসামের কমিসনর রিপোর্ট করিয়াছেন, দুরঙ জেলার চা-করদিগের অনেকে কুলিদিগকে সর্ব্বদা প্রহার করিয়া থাকেন। অন্যত্রও এ দুর্ব্ব্যবহার বিরলপ্রচার নহে। অতএব কমিসনর প্রস্তাব করিয়াছেন, চা-করদিগকে অবৈতনিক মাজিষ্ট্রেটের পদ দেওয়া না হয়.

Somprakás, p. 674.

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c. সুপ্রীমকোর্টের কার্য্যারম্ভ হইবামাত্র, তথাকার বিচারকেরা আপনাদের অধিকার বৃদ্ধি করিতে আরম্ভ করিলেন। যদি কোন ব্যক্তি ঐ আদালতে গিয়া শপথ করিয়া কহিত, অমুক জমীদার আমার টাকা ধারেন, তিনি শতক্রোশদূরবর্ত্তী হইলেও তাঁহার নামে তৎক্ষণাৎ পরোয়ানা বাহির হইত, এবং কোন ওজর না শুনিয়া, তাঁহাকে ধরিয়া আনিয়া জেলখানায় রাখা যাইত; পরিশেষে, আমি সুপ্রীমকোর্টের অধীন নহি, এই বাক্য বারংবার কহিলেই সে ব্যক্তি মুক্তি পাইত; কিন্তু তাহাতে তাহার যে ক্ষতি ও অপমান হইত, তাহার কোন প্রতিবিধান হইত না। এই কুরীতির দোষ অল্পকালমধ্যেই প্রকাশ পাইতে লাগিল। যে সকল প্রজা ইচ্ছাপূর্ব্বক কর দিত না, তাহারা জমীদার ও তালুকদারদিগকে পূর্ব্বোক্ত প্রকারে কলিকাতায় লইয়া যাইতে দেখিয়া, রাজস্ব দেওয়া এক বারেই রহিত করিল। প্রথম বৎসর সুপ্রীমকোর্টের জজেরা সকল জিলাতেই এইরূপ পরোয়ানা পাঠাইয়াছিলেন.

Bángálár Itihás, p. 100.

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d. Bengali Petitions, p. 14 [passage marked].

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e. এই প্রকার সকল লোকেই তাঁহাকে মান্য করিতেন, এবং দক্ষিণ প্রদেশীয় নবাব ও টিপু সুলতান, দিল্লীর বাদশাহকে যেরূপ সম্মান করিতেন অহল্যাবাইকেও সেইরূপ মান্য করিতেন। ইহা ভিন্ন মুসলমান ও হিন্দু সকলেই তাঁহার কুশল ও দীর্ঘায়ঃ প্রার্থনা করিত; হিন্দু বলিয়া মুসলমানদিগের তাঁহার প্রতি কিছুমাত্র দ্বেষ ছিল না.

Nabanári, p. 287.

BENGALI.

Rev. Dr. MULLENS.

Thursday, 23rd June 1870. 3 P.M. to 6 P.M.

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Translate into English:

a. রাজা ভোজ পর্ব্বত শিখরের ন্যায় দেবমন্দিরের মস্তকে এক হস্তাবলম্বী এবং ভুজঙ্গেতে বেষ্টিত দ্বিতীয় হস্ত এই প্রকার ব্রাহ্মণকে দেখিয়া, সকলকে কহিলেন, হে মনুষ্য সকল, তোমারদিগের মধ্যে এমত কেহ আছে যে এই বিপ্রকে রক্ষা করিতে পারে, এবং সেই রক্ষণেতে ব্রাহ্মণ উপদ্রবরহিত হইয়া অনায়াসে দেবমন্দিরহইতে নীচে আসিতে শক্ত হয়, এমত করিতে পারে? তবে আমি তাহাকে অবশ্য এক লক্ষ স্বর্ণমুদ্রা দিব. ভোজ রাজার এই বাক্য শুনিয়া, রাজপুত জাতি সিংহল নামে এক পুরুষ ধনুর্বিদ্যাতে অতি কুশল, সে কহিল, হে নরেন্দ্র, এই বিপ্রের রক্ষার নিমিত্তে বিস্তর প্রয়াস করিব না; আমি অল্প প্রয়াসেতে বিপ্রকে নীচে আনিতেছি; কিন্তু ব্রাহ্মণ ভুজঙ্গবেষ্টিত ঐ বাহু আমাকে দর্শন করাউক. তাহাতে বিপ্র ও সেই রূপ করিল.

Forbes's Reader, p. 67.

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b. মীর কাসিম, পাটনার গবর্ণর রামনারায়ণ ব্যতিরিক্ত সমুদয় জমীদারদিগকে সম্পূর্ণ রূপে আপন বশে আনিয়াছিলেন। রামনারায়ণের ধনবান্ বলিয়া খ্যাতি ছিল; কিন্তু তিনি ইঙ্গরেজদিগের আশ্রয়চ্ছায়াতে সন্নিবিষ্ট ছিলেন। অতএব, সহসা তাঁহাকে আক্রমণ করা অবিধেয় বিবেচনা করিয়া, নবাব কৌশলক্রমে তাঁহার সর্ব্বনাশের উপায় দেখিতে লাগিলেন। রামনারায়ণ তিন বৎসর হিসাবপরিষ্কার করেন নাই। নবাব ইঙ্গরেজদিগকে লিখিলেন, রামনারায়ণের নিকট বাকী আদায় না হইলে, আমি আপনাদের দেয় পরিশোধ করিতে পারিব না; আর, যাবৎ আপনাদের সৈন্য পাটনাতে থাকিবেক, তাবৎ ঐ বাকী আদায়ের কোন সম্ভাবনা নাই.

Bángálár Itihás, p. 56.

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c. Bengali Petitions, No. 29. (as marked).

Translate into Bengali:

a. Next morning the deaf man woke the blind man early saying, "Awake, brother, awake; here we are indeed in luck! the whole floor "is covered with heaps of gold and silver and precious stones." And so it was: for the Rakshas owned a vast amount of treasure, and the whole house was full of it. "That is a good thing," said the blind man;

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"show me where it is, and I will help you to collect it." So they collected as much treasure as possible, and made four great bundles of it. The blind man took one great bundle, the deaf man took another; and putting the other two great bundles on the donkey, they started off to return home.

Miss Frere's Deccan Days, p. 232.

b. In order to preserve his body from decay, a man must subdue his senses and accomplish the end of life. The man who every day eats the flesh of living creatures does nothing wrong; for God created both the eater and his food. Men share pain and pleasure in turn; neither pain nor pleasure lasts for ever.

Brâhma Dharma.

TAMIL.

Rev. S. HOBBS.

Wednesday, 22nd June 1870. 3 P.M. to 6 P.M.

I.

1. What are the Tamil names of the days of the week, and the months of the year; and what are the contracted signs which express respectively the day of the month, the month, and the year?
2. What is the difference between கூடாது and மாட்டாது? Give examples in illustration.
3. Translate the following sentence into Tamil, expressing the fractions by their appropriate signs rather than by their names:
   For one quarter of a rupee he bought half a measure of rice, one-fifth of a pound of curry stuff, three-sixteenths of a measure of ghee, and three-quarters of a bundle of firewood.
4. What is the signification of the grammatical term இடைச்சொல்; and what particles are included under each of its eight subdivisions? Explain,
5. Why the particles under the fifth of those subdivisions are called தத்தம்பொருளாக்காட்டிய இடைச்சொற்கள, and give two or three illustrations of your explanation.
6. How are "Yes" and "No" usually expressed in Tamil otherwise than by the use of the words ஆம் and இல்லை? Translate the following examples, avoiding those words as much as possible, and in no case using them alone:
   Is Coomarasamy in the cutchery? Yes. No.
   Is this a good rupee? Yes. No, it is counterfeit.
   Have you money enough to pay for the rice? Yes. No.
   Is not this what you said? Yes. No.
7. Translate into idiomatic Tamil:
   A compassionate man is not a pitiful man.
   A watery grave.
   He told me what to say.
   He said that he would not come.
8. Also the following:
   He arrived at his journey's end.
   From one end to the other.
   The end of the world.
   The end of the commandment is charity.
   Oh! that they would consider their latter end.

II.

Re-translate into Tamil :

The present defendant's husband and ourselves being brothers who had not divided their property; and the mirâs of the above property being still in the name of the first plaintiff; and the defendant being one to whom already assistance was allowed; and she having no connexion with the land whatever; and since a deed of compromise to this effect having been given in the magistrate's office, the revenue authorities had no right to put the defendant in possession of land which was in our charge: we have made this complaint in order to recover the above land.

A king asked his minister how he could secure the goodwill of his subjects. The minister replied, "By making advances of money for "cultivation to the poor inhabitants; by collecting the land tax in just "proportion to the land ploughed and the seed sown; by acting with "strict impartiality towards the weak and the strong; and by abolish-"ing all severe punishments and heavy fines. If you thus preserve "your people they will be loyal and your majesty will reap the benefit."

TAMIL.

Rev. S. HOBBS.

Thursday, 23rd June 1870. 10 A.M. to 1 P.M.

Translate into English :

மேல்வருகிற தைமாதத்தில் முகூர்த்தம் நடப்பிவிக் கிறதற்காக தேதிமுகூர்த்தம் வைத்து எழுதி அனுப்புகி றேன் அதன்மேல் அதற்காக வேண்டிய சாமக்கிரையங்க ளெல்லாம் அவிடத்திலே சாக்கிரதை செய்யவேண்டியது மேல்நடக்கவேண்டிய எந்தக் காரியங்களும் உன்சம் மதப்படியே தவிர யாதொரு காரியத்துக்கும் என் சம்மதத்துக்காக பார்க்கவேண்டியதில்லை அவிடத்தில் நடக்கிறகாரியமும் எனக்குத்தெரியும்படியாய் அப் போதைக்கப்போதே கவனப்பிசகன்னியில் எழுதி அனுப்பிவிக்க வேண்டியது வேணும் சிரஞ்சீவி பெரி யோர்களுக்கு என்னுடைய வந்தனஞ் சொல்லவும் சிறியோர்களுக்கு என்னுடைய சிரஞ்சீவி சொல்லவும்.

[Panchatantram, page 33 (as marked).]

[Robertson's Tamil Papers, page 177 (as marked).]

[Wright's Official Documents, Urzee 6th.]

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TAMIL.

Rev. S. HOBBS.

Thursday, 23rd June 1870. 3 P.M. to 6 P.M.

I.

Translate into English:

அந்தந்தத் தேசத்தாருக்கு அவரவர் வேதமுண்டு. நீங்கள் உங்கள் வேதத்தின்படி நடக்கிறீர்கள். நாங்கள் எங்கள் வேதமுறைப்படியே நடக்கிறேம் என்கிறீர்கள். இப்படிச்சொல்லுகிற சனங்களே! காரியத்தைச்சற்றே சிந்தித்துப்பாருங்கள். சில அற்பமான காரியங்களில் அந்தந்தத் தேசத்தாருக்குள் வேற்றுமையான பழக்கங்கள் உண்டாயிருந்தாலும் முக்கியமான காரியங்களில் எல்லாருக்கும் ஒரே படியாய் நடந்துவருகிறதே. எல்லாரும் ஒரே உருவாய்ச் சரீரமும் ஆத்துமாவும் உடையவர்களாயீ இருக்கிறார்கள். எல்லாரும் வாயுவைப் பரிசிக்கவேண்டும். எல்லாரும் போசனபானம்பண்ணவேண்டும். எல்லாரும் நித்திரைசெய்யவேண்டும். எல்லாரும் லியாதிக்கு மருந்து சாப்பிடவேண்டும். அப்படியே எல்லாரும் வணங்கவேண்டிய தேவனும் ஒருவரே என்று எல்லாரும் ஒத்துக்கொள்வீர்கள். அந்தந்தத் தேசத்தாரைப்படைத்தவர் வேவ்வேறான தேவர்களென்றல், அப்போது அவரவர் கற்பிக்கிற வேவ்வேறான வேதங்களை அந்தந்தத் தேசத்தார் அனுசரிக்கவேண்டியதுதான். ஆனல் எல்லாரையும்படைத்த நாயன் ஒருவரேயென்று நீங்கள் ஒத்துக்கொண்டால், மார்க்கம் பலவகையாயும் ஒன்றுக்கொன்று விரோதமாயும் இருக்கத்தக்கதென்று என்னமாய்ச் சொல்லக்கூடும்?

இந்துதேசசரித்திரம்.

இநதுதேசத்தின் சரித்திரத்தைமூன்று வகுப்பாய வகுக்கலாம். அவையாவன, பூர்வீக சரித்திரமும், மகமது மார்க்கத்தாருடைய துரைத்தனமும, ஐரோப்பாகண்டத்தார்தேசத்தைப்பிடித்துககொண்டு ஆளுகிறதுமாம்.

(க.) இநதுகளுடைய பூர்வீக சரிதரத்திறகுத தகுதியான நூல்களில்லாதபடியால் மிகவும் மஹவாயிருகின்றது, மகாபாரதத்திற சொல்லியிருகிறயுத்தமும, சிசொஸ்திரிஸ, தரியு இஸ்தாஸ்பீஸ, மகா அலேக்சாநதர், சிலுகஸ, மகா அநதியோக்ஸ், எனபவர்களால, பலகாலஙகளில இநதுதேசஙகட்டிககொளீளப்பட்டதும், கிறிஸது பிறக்கிறதற்குமுன்னே நடந்தசரித்திரமாகத தோனறுகினறது. மகாபாரதத்தில் நடநததாகச சொல்லப்படுகிற பெரியயுத்தம். கி. பி. (கூஉஈ) வருஷீத்துக்கு முன்னே நடந்திருக்கவேண்டும்.

II.

Translate into Tamil:

The triumph of Nuncomar seemed to be complete. He held a daily levee to which his countrymen resorted in crowds, and to which, on one occasion, the majority of the Council condescended to repair. It was said that, partly by threats and partly by wheedling, the villanous Brahmin had induced many of the wealthiest men of the province to send in complaints. But he was playing a dangerous game. It was not safe to drive to despair a man of such resources as Hastings. Nuncomar with all his acuteness, did not understand the nature of the institutions under which he lived. He saw that he had with him the majority of the body which made treaties, gave places, raised taxes. The separation between political and judicial functions was a thing of which he had no conception. It had probably never occurred to him that there was in Bengal an authority perfectly independent of the Council, an authority which could protect one whom the Council wished to destroy, and send to the gibbet one whom the Council wished to protect. Yet such was the fact.

FINAL EXAMINATION. CANDIDATES OF 1868.

GUJARATI.

Rev. Dr. GLASGOW.

Wednesday, 22nd June 1870. 10 A.M. to 1 P.M.

I.

1. State why the head lines can be dispensed with in the current Gujarati letters ; and if you see any advantage in this.
2. What cases are formed with, and what without postpositions ?
3. How do you explain the connexion of certain past tenses of active and passive verbs with an oblique case of the agent ?
4. What two cases may a causative verb require ? Exemplify.
5. What forms have impersonal verbs ?
6. How are adverbs commonly formed from adjectives ?
7. How do you represent the second, or perf. future, "shall have done" ?
8. How do you represent the conditional, "if it were" ?
9. How would you translate the first personal relative, "I who," &c.

II.

Retranslate into Gujarati :

a. A man reaping in a field cut himself with a hook.

b. There is a difference, not only in the form but in the nature of each species.

c. Certain animals employ their toes for prehension.

d. The trunk of cocoa nut trees is very high. Its leaves are completely at the top, and are very long. They are of a construction like that of the feathers of a bird; that is to say, in the middle there is a stem like a strong sinew, on both sides of which there are fibrous barbs. The rind of young cocoa nut trees is yellowish and smooth, but the inward part consists of filaments of which ropes are made. The outer bark is hard; and the tree when green is full of sap, which many people drink. When the nut is ripe, a kernel is contained in it.

e. In Sparta, about B.C. 900, arose Lycurgus. He framed laws for the government of the state, and appointed a council for administration. This council effected very much. But for waging war and carrying on the offices of religion there were two kings. The genuine Spartan people were few. They did not permit foreigners to come into the country. They celebrated their own marriages, and did not permit other subjects to increase under their sovereignty. Their power continued until B.C. 668 ; at that time Sicyon, Corinth, Megara, and various other states had each a king.

GUJARATI.

Rev. Dr. GLASGOW.

Wednesday, 22nd June 1870. 3 P.M. to 6 P.M.

FINAL EXAMINATION. CANDIDATES OF 1868.

Translate into English:

મહેતાજી — માણેકલાલ, હવે તું કહે. કયા જનાવરને ડીલે વાક્ર હોય છે? ને કયાને ડીલે ઊન હોય છે? થોડાનાં નામ દે એટલે બસ.

માણેકલાલ — ગાય અને ઘોડાને વાક્ર હોય છે, ને ઘેટાંને ઊન હોય છે. બકરાને ડીલે જે છે તે વાક્કરતાં જાડા ને ઊનકરતાં પાતક્રા હોય છે.

મહેતાજી — બહુ સારૂં, બીલાડીની ચામડીએ શું હોય છે?

ગીરધર — વાક્ર, પણ ઘોડા કે ગાયના જેવા નથી, તેથી વધારે સુવાક્રા ને ઘટ છે, તેને સવાંટી કહે છે, નહીં સાહેબ?

મહેતાજી — હા, ને સસલાં, હરણ, ને બીજાં કેટલાંક જનાવરને પણ સવાંટી હોય છે. કોઈ જનાવરને વાક્ર, ઊન, કે સવાંટી એમનું કશું હોતું નથી. હાથીની ચામડીએ ઓછા વાક્ર હોય છે, પણ તેમ તેની ચામડીએ ઘણી જાડી હોય છે.

બાપની શીખામણ ઠાકોરના મનમાં ઊતરી નહીં. મોં દાથરા જેવું ચઢાવીને સુસત થઈ બેઠો, ને પાટીપર લીટા કાઢે ને કાંઈ કરવુ સુજ નહીં. એના બાપે વીચારયુ કે આ ટેવ તો ખોટી. ભુલ પેઠ તેમાં ફીકર નહીં, પણ જરાજરામાં ચીડાઈ જાય, તે ખોટું. ભુલ પડી કે ફરીથી તે સુધારીને કરવુંજ નહીં, એ ટેવથી તો છોકરો બગડી જશે, માટે એ ખોટી ટેવ સુકાવવી. તેણે કહયું, બાપુ તેં કદી ગણવામાં ચુક કરી છે. જીવ ઠેકાણે રાખી ફરીથી ગણી જે; એ ખરો પડશે તયારે અહીંથી જવા દેઈશ, નહીં ગણે તો રમવા ઊઠવા નહીં દેઉં. એમ કહી તેને એકલો મુકી બીજા ઓરડામાં ગયો.

FINAL EXAMINATION. CANDIDATES OF 1868.

આપણા દેશમાં ઘણું ઠરીને ચીન અને બંગાડેથી ખાંડ આવે છે. તેમાં કેટલીક ઘણી સફેત, અને કેટલીક રાતી હોય છે. એ ખાંડને નીઠાઈ વગેરે કરવામાં એમની એમ વાપરતા નથી, પણ તેને ધુએછે. એને ધોવાની રીત એવી છે કે ખાંડનું પાણી કરીને તેને ઊકાડે છે, અને તેની બરાબર ચાસણી થાય તયાં લગી ચુલા પર રાખે છે. ઊકડતાં તેમાં દુધ છાંટે છે, તેથી મેલ કપાઈ જાય છે. એ ચાસણી જુદી જુદી તરેહની થાય છે. એની પરીકશા તાર ઊપર હોય છે, એટલે ચપટીમાં ચાસણીનું ટીપું દબાવીને ઊઘાડે છે એટલે એક, બે, કે વધારે તાર હોય તે પરમાણે, તેને એકતારી, બેતારી, કે તરણ તારી ચાસણી કહે છે.

લડાવવી તો નહીં કોઈની નાત, ઘડાવવી તો નહીં કોંઈની ઘાત.
જણાવવી આપણી ખુબી ઊદાર, અણાવવી ઊતમ વસતુ અપાર;
ગણાવવી કીરતી કથા સુખકાર, ખણાવવી ખાણ મહા મુલદાર.
છપાવવી છેલતણી નહીં છાપ, ખપાવવી જનાતણી ઘણી ખાપ;
જપાવવી ઈશવર કીરતી અમાપ, થપાવવી નંતી નેડ નહીં પાપ.
ન થાવું મહા પર લઈ ઊનમત, તથા તજવું અભીમાન અસત;
કથા સુણી ને વઝી રાખી વીગત, વરથા નહીં વાદ વદો દલપત.

FINAL EXAMINATION CANDIDATES OF 1868.

GUJARATI.

Rev. Dr. GLASGOW.

Thursday, 23rd June 1870. 10 A.M. to 1 P.M.

I.

Translate into English:

માણસના શરીરનું કાઠું હાડકાનું બનેલું છે, તેને હાડ-પીંજર કહે છે. કેટલાંક મરમસ્થાનનું રક્ષણ કરવાને એ હાડકાં બહુ કામના છે.

હાડકાં કઠણ અને રંગે ધોળાં છે. એ ચુનાનાં અને સરેસ જેવા ચીકણા પદારથનાં બનેલાં છે, તેની શાબીતી જેવી હોય તો હાડકાને દેવતાનાં બાળો એટલે તે ઘણું હલકું ને બરડ થઈ જશે, કેમકે એકલો ચુનો રહેશે ને પેલો ચીકણો પદારથ બળી જશે. વળી જે હાડકાને બે તરણ દહાડા જલદ સરકામાં પલાળી મુકશો, તો તે એવું તો પોચું થઈ જશે કે તેને વાળીને જેવો આકાર કરવા ચાહાશો તેવો થઈ શકશે, કેમકે તેમાંથી ચુનાનો તમામ ભાગ જતો રહીને સરેસ જેવો એકલો પદારથ રહેશે. હાડકામાં ચુનો છે તેથી તે કઠણ રહે છે, અને તેમાં સરેસ જેવો પદારથ છે તેથી ચીકાસ હોય છે, એટલે તુટી કે ભાગી જતું નથી.

સતયનો અંગીકાર કીધો એવું દેખાડીને તે છોડી દેવાના ઘણાએક રસતા છે તે એવા કે, મોઢામાંથી જુઠું બોલયા-વગર બીજાને ઠગવું હોય તો હરએક યુકતિથી ઠગતા આવડે. જુઓ! બજારમાં કાપડ વેચનાર લોકો દુકાનમાં જહાં તાંહાં કાપડના પડદાબાંધીને અંધારૂં કરે છે, કેમકે, પોતાનો માલ ખરાબ હોય તોયપણ ઘરાકની નજરે સારો દેખાયામાં આવે; અને તે પરમાણે તેની કીંમત વધારે આવે. તેમજ બીજા

FINAL EXAMINATION. CANDIDATES OF 1868.

વ્યાપારીઓ પોતાનો માલ જુનો હોય તો તે ઢીકઢાક કરીને નવો સરખો બનાવીને વેચે છે. તેમજ નવા માલમાં જુનો ભેરવીને નવાના ભાવથી વેચે છે. એવી નાના પરકારની યુકતિ કરીને તેઓ લોકોને છેતરે છે; અને મનમાં એવું જાણે છે કે, અમે કાંઇ જુઠું બોલયા નથી.

રામમોહનરાયે સુમારે બાવીસ વરષની ઉંમરે ઈંગલીશ ભાષા શીખવાનો આરંભ કરયો. પણ જેમ બીજી ભાષાઓ શીખવામાં મન દઈ મેહેનત કરયાથી સારૂં ગનાન મેલ્વયું હતું, તેમ આ ભાષા ઊપર મન દઈનેં મેહેનત કરવાનેં બનયું નહીં, તેથી બીજ છ વરષ લગી કહીએ તેવું સારૂં ઈંગલીશ ભાષાનું ગનાન તેનેં થયું નહીં. છ વરષ પછી તે ભાષા શીખવા પછવાડે મન દઈનેં મેહેનત લીધી તેથી, તે ભાષાથી એટલો તો માહીતગાર થયો કે, તે શુધ લખતાં અનેં બોલતાં શીખયો. પરંતુ કેટલાએક એવું કેહે છે કે રામમોહનરાયના બનાવેલા ઈંગલીશ ગરંથો ઊપરથી તેની ઈંગલીશ ભાષાની માહીતગારીની પરીકશા કરવી નહીં.

II.

Translate into Gujarati:

When the tidings of the battle of Chillianwalla were received in England, they caused a painful sensation among all classes of the community; and the government thought it advisable to appoint Sir Charles Napier to command the army in India, and to continue the Punjab war; but, long before he arrived in this country, the war had been brought to a favourable conclusion. On the 21st of February, a decisive action took place at Gujerat, where Shere Sing had taken up a strong position with an army of 60,000 men, fifty-nine guns, and a detachment of Affghan cavalry under a son of Dost Mahomed Khan.

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MARATHI.

Rev. A. H. FROST.

Saturday, 25th June 1870. 10 A.M. to 1 P.M.

1. Decline स्त्री, पोती, जीभ, माता.
2. Write the cardinal numbers from 90 to 100.
3. Write the fractional numbers from $\frac{1}{4}$ to $3\frac{3}{4}$.
4. Decline हा and जो कोणी in the masculine and feminine singular.
5. Write the various tenses of होणें in the three persons singular and plural.
6. Give one person in the principal tenses of the negative of होणें.
7. Give instances illustrating the conjunctive participle ऊन.
8. *Translate into Marathi:*
   (*a.*) She could not tell what to do or where to go.
   (*b.*) *You* must have taught me.
   (*c.*) What are you going to do.
   (*d.*) Your father will probably be wanting you.
   (*e.*) Should he be going intrust the business to him.
9. Give instances showing the use of असलों, असतों, ह्मणून.

Translate into Marathi (*Balbodh*):

When the townspeople heard the dreadful tidings there was great lamentation, and the king was sorely perplexed as to whether he should or should not give Padmani for the release of Bhimasing. The moment that Padmani understood this she said, "Why are you anxious? I consent to go there." So saying, having provided herself with the means of preserving her honour, she proposed to set out. Her two servants then consulted with her, and devised a plan for the liberation of Bhimasing without injury to her life or honour.

There are some wretches who outwardly in talking show great friendship and inwardly seek to compass destruction. He who is an open enemy is well; but he who with the semblance of a friend within practices the deed of an enemy is very bad, treacherous, a very villain—do not see his face.

Translate into Marathi (*Modi*):

I think the hide must have been taken off the body of the bullock the very day I bought it. When I paid the price the prisoner Ganu told me that he obtained money by giving the earring in mortgage, bought an animal that was nearly dead, took off its hide, and brought it for sale; and that I should not entertain any suspicion. He did not tell me that he had bought the animal from such and such a person. He did not tell me what became of the bullock's flesh, nor did I question him on the subject.

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MARATHI.

Rev. A. H. FROST.

Saturday, 25th June 1870. 3 P.M. to 6 P.M.

Translate into English:

1. आपल्या घरचा कामाचो काळजो आपण जितकी बाळगितों, तितकी चाकर बाळगीत नसतात; होईल तसें होवो. असें ह्मणून ते निश्चिंत असतात; जाचें अन्न खावें त्याचें हित होईल तें करावें, हा जो सेवकांचा धर्म, तो त्यांचा स्वप्नींहि नसतो; त्यांचें चित्त सर्वकाळ आपल्या स्वार्थावर असतें; तो जांत साधेल तें ते करीत असतात; त्यापुढें धन्याचें हित त्यांस दिसत नाहीं. पाहिलें असतां, आंगचा उधळेपणामुळें मोडलेले असे श्रीमंत थोडकेच निघतील; परंतु चाकरांनी नाडिल्यामुळें धुळीस मिळालेले असे पुष्कळ. ह्यासाठीं धन्याने आपल्या कामास आपण स्वतः सावध असावें; केवळ चाकरांचा विश्वासावर त्याने राहूं नये.

2. पीतर ह्यानें रूस देशीं परत गेल्यावर यूरोपखंडांतील दुसऱ्या देशांत ज्या चाली पाहिल्या होत्या त्यांसारख्या आपल्या देशांतल्या चाली कराव्या ह्मणून त्यांत पुष्कळ फेरफार करायाला आरंभ केला, तो सर्व येथें सांगत नाहीं. इतकेंच येथें सांगतों कीं त्यानें फार मेहनत घेऊन, व कधीं कधीं मोठा जुलूमहि करून, फार जुने कायदे होते त्यांतून कित्येक कायदे अगदी फिरवून टाकिले, आणि लोकांच्यासुद्धां चालो फिरविण्यास त्यानें उद्योग चालविला; त्यामुळें तो देश अगदी अडाणी लोकांचा होता तरी त्यांत पुढें हळू हळू पुष्कळ चांगल्या चाली चालू झाल्या. पीतर राजानें आपल्या लोकांस पुष्कळ चांगल्या गोष्टी शिकविल्या. त्यानें त्यांला नौकाशास्त्र आणि व्यापार हीं शिकविलीं. त्यानें त्यांस शेतकीचें काम सुद्धां शिकविलें. तसेंच साक्सनी आणि सिलीशा ह्या देशांतून मेंढ्यांचे कळप आणि मेंढके आणून आपल्या लोकांस मेंढ्या राखण्याचें सुद्धां काम शिकविलें. त्यानें सर्व प्रकारचे ऊशार लोक दुसऱ्या देशांतून बोलावून आणून आपल्या देशाला चांगली स्थिति येण्याला जीं साधनें ईश्वरानें दिलीं आहेत तीं कोणत्या रीतीनें उघडकीस आणितां येतील ह्याविषयीं प्रत्येकास आपआपल्या कामांत तजवीज काढायाला सांगितलें.

3. अंतरींनिर्मळवाचेचेचारसाळ ॥ त्याचेगळांमाळअसोनसो ॥
आत्माअनुभवींचोखाळिल्यावाटा ॥ त्याचेमाथांजटाअसोनसो ॥
परस्त्रीचेठायींजोकानपुंसक ॥ त्याचेअंगाराखअसोनसो ॥
परद्रव्याअंधनिंदेसिजोमुका ॥ तोचिसंतदेखातुकाम्हणे ॥

देवाचियादासानाहींभयचिंता ॥ दुःखनिवारितादेवतोचि ॥
नलगेवाहणेंसंसारींउद्योग ॥ जडोनेदीपांगदेवराय ॥
असोद्यावाधीरसदासमाधान ॥ तेणेंभगवानजवळीकेला ॥
तुकाम्हणेमाझेजाणेंअंतरंग ॥ व्यापियलेंजगतेणेंएकें ॥

4. Vachanmala, XLVIII. to कबूल आहेत on 5th line from the end.

MARATHI.

Rev. A. H. FROST,

Monday, 27th June 1870. 10 A.M. to 1 P.M.

Translate into English :

यमुनाबाईने त्यांच्या गोष्टीचो कुणकुण ऐकिली परंतु तिला तिचा स्पष्ट अर्थ समजला नाहीं. तरी तिने जेवढें ऐकिलें होतें तेवळ्यावरून तिला वाटूं लागलें कीं आपणावर कांहीं तरी मोठें संकट येत आहे. आणि आतांच आपल्या धर्मसंबंधी विश्वासाची परीक्षा आह खरी. असा ती विचार करीत आहे इतक्यांत शिवरामाने एक पत्र आणून तिच्यापाशीं दिलें. तें तिने फोडून सही पाहिली ती तिच्या ओळखीच्या गृहस्थाची नव्हती. मग ती तें पत्र वाचूं लागली. त्यांत मजकूर येणेप्रमाणें होता.

"माझ्या प्रिय बहिणी, मी तुह्मास माझ्या नावावरून परकी अशी वाटेन, परंतु मला तसें मानूं नये. मी तुमच्या प्रिय पतीस बऱ्हत दिवसांपासून ओळखत होतों. त्याचा माझा स्नेह फार होता, व त्याजकडून तुह्माविषयींहि मी वारंवार ऐकत असें. आतां तुमचें वर्तमान ऐकून मला फार दुःख झालें आहे, आणि अशा प्रसंगीं मी तुह्मास लिहिलें नाहीं तर मित्राबराबर कपटानें वागल्याचा दोष माझ्या पदरीं येईल, ह्मणून जरी तुमची माझी पूर्वी कधींच भेट किंवा पत्रव्यवहार झाला नव्हता तरी या वेळीं मी हें लिहितों ह्मणून

FINAL EXAMINATION. CANDIDATES OF 1868.

मला क्षमा असावी. अशा नाजूक दुःखाच्या वेळीं मी तुह्मास कोणता सुबोध व कसें शांतवन द्यावें हें प्रभु मला शिकवो.

अलीकडे सुधारलेल्या सरकारांनीं त्या देशांच्या अधिकाऱ्यांपासून नवीन करार करून घेऊन ते प्रतिबंध मोडून टाकले ह्मणून आतां पाहिजे त्यास त्या देशांत वाटेल तिकडे फिरण्यास मोकळीक आहे. यावरून तिकडे ज्ञानी लोकांचें वजन पडून त्या लोकांच्या मनांत प्रकाश पडत चालला आहे.

सर्वत्र स्वतंत्रतेची वृद्धि होत चालली आहे. अमेरिकेंत दास ठेवण्याची चाल होती ती नाहींसी झाली. इंग्लिश लोक असें ह्मणत असत कीं, आमच्या इंग्लंड देशाच्या भूमीवर दासानें पाऊल टाकलें कीं त्याचीं बंधनें तुटून जातात, व हें ह्मणणें खरें होतें. तसें कांहीं वर्षांमागें आह्मा अमेरिकन लोकांस आपल्या देशाविषयीं ह्मणतां येत नव्हतें, पण आतां ह्मणतां येतें. कोणाच्यानें दास्य नाहींसें करवेल असें वाटत नव्हतें, पण दास बाळगणारांनींच तें कार्य सिद्धीस नेलें. दास्य चिरकाळ कायम करावें या उद्देशानें त्यानीं सरकारांसीं लढाई चालविली, व तिचा परिणाम ईश्वरी सूचाने असा झाला कीं, त्या देशांत ४० लच गुलाम होते ते सर्व मुक्त झाले. याच प्रमाणें दुसऱ्याहि देशामध्यें झालें व होत आहे.

मनाची स्वतंत्रता वृद्धिंगत होत आहे. सर्वत्र विद्येचा प्रसार होऊन लोक बरें वाईट, योग्यायोग्य याचा विचार करूं लागले आहेत, आणि व्यर्थ व मिथ्या गोष्टींवरून त्यांचा विश्वास उडूं लागला आहे. एथेंहि त्याच प्रमाणें चाललें आहे. एथील लोकांस विद्या प्राप्त व्हावी ह्मणून सरकारानें सर्वोत्कृष्ट योजना केली आहे. तुमचीं मनें प्रकाशित होऊन तुह्मी विचार करूं लागला आहां. तुमच्यांत जातिभेद व दुसऱ्या कित्येक अशा चाली आहेत कीं, युक्ति व सुविचार यांच्या कसोटीस लावलें असतां त्यांचा क्षणभरहि टिकाव होणार नाहीं. ह्या चाली नाहींशा होतील; आणि आमच्या पवित्र शास्त्रांत सांगितलें आहे कीं, 'देवानें पृथ्वीवरील सर्व राष्टें एकाच रक्तापासून केलीं आहेत,' ही गोष्ट पूर्णतेस येईल.

FINAL EXAMINATION. CANDIDATES OF 1868.

Translate into Marathi:

Dr. Mead relates a case which shows us how we may take advantage of foibles and mental habits to rouse the sluggish spirit into activity. An hypochondriacal student of Oxford, after a life of bodily indolence, imagined himself on the point of death, and ordered the passing bell to be tolled, that he might hear it before he died. He had been fond of bell-ringing, but finding it now most execrable, he leaped out of bed, and hastened to the belfry to show how the bell ought to be rung; he then returned to his room that he might die decently. But the exercise had cured him, and having been once diverted he could now continue to attend to other subjects than his own morbid impressions. From that time his reason and health returned together.

PERSIAN.

Colonel J. W. J. OUSELEY.

Saturday, 25th June 1870. 10 A.M. to 1 P.M.

Translate into Persian:

I have heard that King Nowshirman just before his death, spoke thus to his son Hormuz: Be a guardian, my son, to the poor and helpless; and be not confined in the chains of thine own indolence. No one can be at ease in thy dominion, while thou seekest only thy private rest, and sayest, it is enough. A wise man will not approve the shepherd who sleeps while the wolf is in the fold. Go, my son, protect thy weak and indigent people; since through them is a king raised to the diadem. The people are the root and the king is the tree that grows from it; and the tree, O my son, derives its strength from the root.

Forty years of your precious life have elapsed, and your disposition has not altered from the state of childhood.

O my soul, if you make choice of humility, mankind will be your friends: Humility augmenteth dignity, as the sun illumines the moon.

The children of Adam attain perfection by knowledge, not through pomp or splendour, riches, or possessions.

PERSIAN.

Colonel J. W. J. OUSELEY.

Saturday 25th June 1870. 3 P.M. to 6 P.M.

I.

Translate:

وهمه كارهاي اين جا چنانچه دل مي‌خواست هم چنان شد و از روي خواهش سامان و سرانجام پذيرفت وهمه سر داران وگردن كشان كمربندگي برميان‌جان بستند و گوشوارهٔ فرمان برداري در گوش فروتني كشيدند و بلشكر فيروزي اثر در آمدند و اين همه مردمان كوناكون‌را باهم پيوند دست داد و مانيز سر نياز

FINAL EXAMINATION. CANDIDATES OF 1868.

بر زمین خاکساري و تارك امید بر درگاه خداوندکاري نهاده بوستان آرزوي این مردم‌را بسر چشمهٔ داد و دهش هم سبز و شاداب ساختیم و پیش نهاد خاطر آن بود که چون این کار و بار سرانجام یابد شوریده بختان فرنگ که در جزایر دریاي شور در آمده سر به شور انگیزي براورده‌اند و سنگ راه دریا نوردان هفت کشور شده سیمابرزائران حرمین الشریفین آزار بسیار مي‌رسانند خود یورش نموده آن راه‌را ازین خار و خاشاك پاك سازیم لیکن چون شنیده مي‌شود که بعض اوباش قزلباش از جادهٔ عقیدت و اخلاص بیرون آمده بوالي خود بي ادبیها کرده‌اند بخاطر حق جوي میرسد که یکي از فرزندان کامکاررا بدان جانب تعین فرمائم ❁

II.

یکي در بیابان سگي تشنه یافت * برون از رمق در حیاتش نیافت
کُلَه دلو کرد آن پسندیده کیش * چوحبل اندران بست دستارخویش
بخدمت میان بست و بازو کشاد * سگ ناتوان‌را دمي آب داد
خبر داد یزغمبر از حالِ مرد * که داور گناهانِ او عفو کرد
الاگر جفا کاري اندیشه کن * کرم پیشه گیرووفاپیشه کن
کسي با سگي نیکوئي گم نکرد * کجا گم شود خیر با نیك مرد
کرم کن بران کت‌برایدزدست * جهانبان در خیر برکس نه بست
گرت در بیابان نباشد چهي * چراغي بنه در زیارت گهي
بقنطار زر بخش کردن ز گنج * نه چندان که دیناري از دست رنج
برد هر کسي بار در خورد زور * گران است پائي ملخ پیش مور
گوبا خلق نیکي کن اي نیکبخت * که فردانگیرد خدا بر تو سخت
گرازپادرآید نماند اسیر * که افتادگان‌را بود دستگیر

III.

FINAL EXAMINATION. CANDIDATES OF 1868.

پس کار من ازین حادثه بدرجهٔ رسید که، نهال طمع از زمین دل بر کندم و از شاخسار رضا میوهٔ قناعت بدست آوردم و بقضای ایزدی رضا دادم و سر بر خط روزگار نهادم و باخود گفتم که دنیا در ضمن این وقایع و نوائب از خصائص و معائب خود خبر میدهد غایتش آنکه دیدهٔ عقلی که برمد حرص مبتلا است بعیبهای او نا بیناست در هیچ دولت خانهٔ نیست که اثر مکر و خدیعت او بظهور نرسیده و بر کتابهٔ هیچ قصری نمانده که نشانهٔ قصد او مثبت نگشته کرا بر داشت که نیفگند و کجا نهالی نشاند که باز بر نکند با که تکلفی نمود که خونش نخورد و بر که در دولتی کشود که هزار محنت از پی در نیاورد ❁

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5. PAPERS SET AT THE PRIZE EXAMINATION OF CANDIDATES SELECTED IN 1868.*

PRIZE EXAMINATION. CANDIDATES OF 1868.

LAW (PRIZE EXAMINATION).

F. LUSHINGTON, Esq.; H. S. MAINE, Esq.; and T. C. SANDARS, Esq.

Saturday, 11th June 1870. 10 A.M. to 1 P.M.

1. State and criticize the examples given by Bentham of what he terms "False Methods of Reasoning on the subject of Legislation."
2. What did Bentham mean by "Satisfaction"? In what ways did he think the Penal Code should provide for it? How far are the systems of Criminal Law of Rome, England, and India in harmony with his doctrines on the subject?
3. State the leading doctrines of Roman Law as to "Possession."
4. Hancock *v.* Peaty was a suit of nullity of marriage by wife against husband, on the ground that she was insane at the time of marriage. She appeared only by a guardian assigned *ad hoc* by the Court at his own instance: and a decree of nullity was pronounced. In a recent suit for divorce on the ground of adultery by the wife, proof being given of the wife's insanity at the time of the suit, an order is made to stay proceedings so long as she shall continue insane. The following is part of the argument used against the order:—

"It is said that the *status* of the respondent would be affected by judgment: but so is that of the defendant in an action of ejectment involving a question of marriage or legitimacy. It is true that the judgment in such an action as last-mentioned would not be a judgment *in rem*: but this really makes no diffe-

* For the time table, see p. 321.

PRIZE EXAMINATION. CANDIDATES OF 1868.

rence. Upon an information in respect of smuggled goods under the revenue laws a judgment is made *in rem* that the goods be forfeited: but the insanity of the defendant would be no bar to such an information. Not only is there no authority that a suit involving the *status* of one of the parties or terminating in a judgment *in rem* cannot be carried on against a lunatic, but Hancock *v.* Peaty is a direct authority to the contrary: the judgment there being a judgment *in rem* putting an end to the *status* of marriage, and one of the parties whose marriage was annulled being throughout the suit lunatic and appearing only by her guardian."

Explain the technical terms, analyze the value of the precedent and the soundness of the argument, and argue the question of staying proceedings upon the comparative analogies borne by a divorce suit to a civil and to a criminal proceeding.

5. The magistrate of a district in India has reason to apprehend a riot. What steps may he take to prevent it; (1) in an ordinary case; (2) where it is likely to arise through a dispute about the right to land?
6. Give a brief account of the differences between the Hindu and Mohammedan laws of slavery. What provisions of the Penal Code prevent slave-dealing and detention in the servile state?
7. What are the provisions of the Penal Code which apply to the case of a surgeon causing the death of a patient; (1) by a skilful; (2) by an unskilful operation?

HISTORY AND GEOGRAPHY OF INDIA (PRIZE EXAMINATION).

C. ERSKINE, Esq.

Tuesday, 14th June 1870. 10 A.M. to 1 P.M.

1. Characterize Orme's History of Hindustan. To what periods of time and to what parts of India does it mainly relate? What portions of it do you regard as especially valuable? And why?
2. Give a full account of the affairs of the Marattas during the interval between the death of Mahadaji Sindia and the Treaty of Bassein.
3. Give a general sketch of the relations between the rulers of Oud and the successive Governors General of India, to the time of Lord Hardinge.
4. Explain the origin, history, and results of the expedition to Java.
5. What do you know about the Indian careers of Sir T. Munro, Sir J. Malcolm, the Hon. Mount Stuart Elphinstone, Lord Macaulay, and Sir W. Macnaghten?
6. Give an account of the Parliamentary inquiries and discussions that preceded the passing of the Indian Charter Act of 1833.
7. Show on a map the positions of the following places: Banda, Bhurtpore, Callinjer, Calpi, Chunar, Deeg, Gohad, Jansi, Rewa, Rotas. What do you know about each of these places?
8. Draw a map to illustrate the first Burmese War.
9. Give some account, geographical and historical, of the provinces of Bundelkund and Berar.

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POLITICAL ECONOMY (PRIZE EXAMINATION).

REV. J. E. THOROLD ROGERS.

Wednesday, 15th June 1870. 3 P.M. to 6 P.M.

1. In what sense, and to what extent, can a departure from the principles of free exchange be justified (1) by political exigencies, (2) by social considerations?
2. By what processes are the "channels of trade" diverted? Attempt to state some leading principles on this topic.
3. Give Ricardo's distinctions between value and riches.
4. Upon what part of a nation's currency does the rate of exchange take effect?
5. Give an account of the financial expedients which were adopted during the Crimean war.
6. Discuss the effects of a seignorage on a metallic currency, and that of a tax on the issues of private bankers.
7. State the method in which the public accounts are kept, and indicate the changes which have been made in the system of late years.
8. "A tax on necessaries, or on wages, will be shifted from the poor to the rich." Examine this statement.
9. What exceptional circumstances characterise, according to Mr. Goschen, the Russian exchanges?
10. What are the opinions of Ricardo as to the effect of "machinery" on the wages of labour?
11. Discuss Ricardo's reasonings on the incidence of a tithe and a land tax.
12. A succinct account of Free Trade legislation in the United Kingdom.

HINDÎ (PRIZE EXAMINATION).

FITZEDWARD HALL, ESQ., D.C.L.

Wednesday, 22nd June, 1870. 10 A.M. to 1 P.M.

I.

For translation into English:

a. वेद में ऐश्वर्य और मुक्ति के हेतु कर्म और भक्ति और ज्ञान ये तीन उपाय लिखे हैं। तिन का अधिकारी गृहस्थ है क्योंकि पुरुष ब्रह्मचर्याश्रम में विद्या का संचय अच्छे प्रकार से कर सकता है। उस में स्त्री पुत्र धनादि की चिन्ता नहीं रहती है। इस से उक्त आश्रम का विधान वेद में किया है। सो वह भी उक्त रीति से गृहस्थाश्रम का प्रथम अङ्ग है। फिर वानप्रस्थ और संन्यास इन दोनों आश्रमों में पुत्रादिकों को उक्त आश्रमियों के वसन अशन सेवनादि की चिन्ता निवृत्त होने से वे भी गृहस्थाश्रम के उक्त रीति से उत्तर अङ्ग हैं जैसे

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पिता के रचे हुए कूप गृहादि पदार्थ हैं। इस से एक ही आश्रम के विधान में वेद का प्रयोजन है जैसे गोतम ऋषि के बनाए हुए धर्म-शास्त्र के तीसरे अध्याय का ३° सूत्र है। वेद में जो आश्रमों का विकल्प लिखा है वह भी उक्त रीति से गृहस्थाश्रम का उपयोगी है। और उसी एक आश्रम का विधान मुख्यता से कहा है। फिर औरों का उस के अङ्ग मानके विधान किया है। इस वर्णन पर प्राचीन और नवीन सब पण्डितों की संमत है। इस से यह बात ठीक हुई कि मुख्य आश्रम एक गृहस्थ है। फिर वह विवाह के अधीन है जैसे गोतमसूत्र में लिखा है।

b. रानी को बहुत सी बेकली थी।
कब सूझती कुछ बुरी भली थी॥
चुपके चुपके कराहती थी।
जीना अपना न चाहती थी॥
कहती थी कभी अरे मदनबान।
है आठ पहर मुझे वही ध्यान॥
दहां प्यास किसे भला किसे भूख।
देखूं हूं वही हरे हरे रूख॥
टपके का डर है अब य कहिये।
चाहत का घर है अब य कहिये॥
अमरइयों में उन का वह उतरना।
और रात का सांइ सांइ करना॥
और चुपके से उठके मेरा जाना।
और तेरा वह चाह का जताना॥
उन की वह उतार अंगूठी लेनी।
और अपनी अंगूठी उन को देनी॥
आंखों में मेरे व फिर रही है।
जी का जो रूप था वही है॥
क्योंकर उन्हें भूलूं क्या करूं मैं।
मा बाप से कब तक डरूं मैं॥

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II.

For translation into Hindî :

Time is a mysterious thing, concerning which we have but very dim conceptions. Some have thought it to be the mere indispensable mode in which all our thoughts are conceived. At least, that it is measured by the succession of our ideas seems clear enough. And, if so, there is nothing to prevent a year from being compressed into an hour. The year of one rational being may be the hour of another ; nay, a year may, to the same individual, be less than an hour under different circumstances. It is almost proverbial that, every year, the years seem to roll round faster ; which so happens, not, perhaps, because, the younger we are, the more ideas we have, whereby the year seems to be more full of incidents, but, rather, the contrary ; because the relations of ideas which are presented to the mind, as it grows older, become so numerous, that they successively drive each other away, and a less definite impression, on the whole, is left, than when we were young, and ideas, from being few, were more indelible. How much may pass in the mind during forty days !

HINDÛSTÂNÎ (PRIZE EXAMINATION).

FITZEDWARD HALL, ESQ., D.C.L.

Monday, 20th June, 1879. 10 A.M. to 1 P.M.

I.

For translation into English :

a. شکر پادشاہ ہونے کا یہہ ہي کہ تمام عالم اور بني آدم پر عدل اور احسان کرے * اور شکر زیادتي سلطنت اور آبادي ملک کا یہہ ہي کہ رعیت کے حصّے اور مال مین طمع نہ کرے * اور شکر حکومت کا یہہ ہي کہ اپنے فرمانبرداروں کا حق پہچانے * اور شکر خوشطالعي اور اقبال کا یہہ ہي کہ بیکس اور غریبون پر رحم کرے * اور شکر افزوني خزانہ کا یہہ ہي کہ روز راتب التغاء آئمہ جو عاجز عیالدار ہون یا بیکس بیوہ ہون اُنہین مقرر کر دے * اور شکر قدرت اور قوت کا یہہ ہي کہ عاجز اور ضعیف و کمزورون پر شفقت اور بخشش کرے * اور شکر صحت اور تندرستي کا یہہ ہي کہ بیمارون اور اپاہجون اور مظلومون کو عدل و انصاف سے راضي اور خوش رکھے * اور شکر بہت فوج اور لشکر کا یہہ ہي کہ اُن کے ظلم اور زبردستي سے غریبون کو پناہ مین رکھے * اور شکر بلند عمارتون اور بہشت کے سے باغون کا یہہ ہي کہ حویلیان اور جھوپڑیان رعیتون کي اپنے نوکرون کے اُترنے اور رہنے سے محفوظ رکھے *

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b. هر گاہ کہ انسان اپني زندگاني کے لئے کھانے پینے کي طرف محتاج هي ليکن غذاے انساني بغير تدبير صناعي کے جيسے کھيتي اور اُس کا تردد اور آباد کرنا پھر جب پکے تو کاٹنا انبار کرنا ملنا جھاڑنا کوٹنا پيسنا پکانا وغيرہ کے ممکن * اور انتظام اُن سيون کا بدون اعانت و شراکت کے منصور نہين بخلاف حيوانون کي غذا کے اِس لئے کہ وہ طبيعي هي صناعت کا دخل اُس مين کچھ نہين * اور جب کہ روزانہ قوت لابدي کا هر روز موجود کرنا خيلے قباحت هي تو احتياج هوئي کہ قوت سالانہ جمع کيجئے اور اُس کو حفاظت مين رکھئے * ليکن محافظت اُس کي بي امداد کسي مردم معتبر اور بغير ايک ايسے مکان کے کہ جہان محفوظ رہ سکے اور چور اُچکے کے هاتھ سے بچ رهے هو نہين سکتي * پس ضرور هوا کہ حويلي اور گھر بناے اور جب کہ هر ايک شخص کو اِس پيشے کي ترتيب کي جو قوت کے حاصل کرنے کے لئے ضرور هو احتياج هي تو البتہ اس کے واسطے ايک مددگار بھي چاهئے کہ جس وقت مالک اپنے مکان سے کسي کام کو جاے تو وہ نگہباني کرے يا خانہداري کے ضروري کامون مين اُس کے ساتھ اعانت کرے ۞

II.

For translation into Urdû:

Simplicity leads a writer to say things without display; and depth obliges him to use inadequate words. The deeper the thought, the plainer the word; the word and thought diverge from each other. Again, it is a property of depth to lead a writer into verbal contradictions; and it is a property of simplicity not to care to avoid them. Further, when a writer is deep, his half sentences, parentheses, clauses, nay, his words, have a meaning in them independent of the context, and admit of exposition. There is nothing put in for ornament's sake, or for rhetoric; nothing put in for the mere sake of anything else, but all for its own sake. Moreover, when a writer is deep, or, again, when he is simple, he does not set about exhausting his subject in his remarks on it; he says as much as is in point, no more; he does not go out of his way to complete a view, or to catch at collateral thoughts: he has something before him which he aims at; and, while he cannot help including

much in his meaning which he does not aim at, he does aim at one thing, not at another. All such assertions as the foregoing should be received with great caution and much reservation.

PRIZE EXAMINATION. CANDIDATES OF 1868.

BENGALI (PRIZE EXAMINATION).

Rev. Dr. MULLENS.

Friday, 24th June 1870. 10 A.M. to 1 P.M.

1. What is the present state of the Bengali language and of Bengali style; what changes has the language recently undergone? What is its relation to other languages in North India and Bombay? How many people use it as their native tongue?
2. Explain the following words, and give equivalents of the words or of their roots in any two of the European languages, ancient or modern: দ্বার; নৌকা; জ্ঞান; জন্ম; সংযোগ; অঙ্ক; গাই; ফুল; দেও; উপর; সর্প; তারা; ত্রিশূল.
3. Analyse the following words into their roots and trace their meaning: খোদাবন্দ, "master"; চৌবাটি, "a college"; নাগদন্ত, "a tusk"; পত্নী, "a wife"; দ্বিভাষী, "an interpreter"; ভূপাল, "a king"; মনোহর, "captivating"; নরাধম, "despicable."
4. Translate into English:

a.

শ্রীরাম বলেন শুন গাধির নন্দন।
আজ্ঞা কর করিব কি ধনুকধারণ॥
এতেক বলিয়া রাম সহাস্য বদনে।
ধনুক ধরেন করে দেখে সর্ব জনে॥
ধনুক তুলিয়া রাম বলেন লক্ষণে।
ভাঙ্গিব শিবের ধনু ভয় হয় মনে॥
ধনুকে অর্পিয়া গুণ বলেন মুনিরে।
তাহা করি যাহা আজ্ঞা করিবা আমারে॥
মুনি বলিলেন রাম দেখাও কৌতুক।
মনোরথ পূর্ণ কর ভাঙ্গিয়া ধনুক॥
আজ্ঞা পায়ে শ্রীরাম দিলেন গুণে টান।
মড়২ শব্দে ধনু হইল দুই খান॥
সভার সকল লোক হারাইল জ্ঞান।
ত্রিভুবন সঘনে হইল কম্পমান॥
হইলেন জনক ভূপতি হরষিত।
বাদ্য বাজে মিথিলানগরে অগণিত॥

Ramayun, Book I., p. 217.

b. Bengali Petitions, p. 188 (as marked).

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5. Translate into Bengali:

a. When will the flood-tide come in? On the full moon it comes in at Calcutta at ten o'clock. Sometimes the bore is very strong, and destroys numerous boats. The wind is very high; lower the sail; take the boat to the shore, and pull it by the rope. Three days hence we may reach Benares. What is the use of being in a hurry?

b. A planter was greatly annoyed by the trespass of cattle in his indigo fields. He seized them repeatedly, and sent them to the police station, but the inspector was not a friend of his, and the cattle found their way home. What was he to do? He could not shoot them; he must not maim them or harm their limbs. So he cut off their tails, and then invited some friends to dinner. When the herdmen complained in court, the case was dismissed.

Revelations of an Orderly.

c. "There is a poor Brahmin in the town, who possesses a wonderful "chattee, which is always filled with the most delicious dinner. I may "not deprive him of it. But if it pleased your Highness to take it "from him, he could not complain." The rajah hearing this, determined to see and taste for himself.

Old Deccan Days, p. 190.

TAMIL (PRIZE EXAMINATION).

Rev. S. HOBBS.

Friday, 24th June 1870. 10 A.M. to 1 P.M.

I.

Translate into English:

[Wright's Official Documents, Urzee, 76. (as marked).]

அன்பிற்கு முண்டோ வடைக்குந்தா ழார்வலர்
புன்கணீர் பூச றரும். - - - க

இதின்பொருள் அன்பிற்கும் — அன்பினுக்கும் — அடைக்கும் — (பிறரறியாமல்) அடைத்துவைக்கும் — தாழ் — தாழும் — உண்டோ — (தம்மால் அன்புசெயப்பெற்றவரது துன்பங்கண்டவிடத்தே பொழிகின்ற) — ஆர்வலர் — அன்புடையாரது — புன்கணீர் — புல்லியகண்ணீரே — பூசறரும் — (உள்ளேயிருக்கின்ற அன்பினை) எல்லாரும் அறியத் தூற்றும்.

II.

Translate into Tamil:

The heart is a deceitful devil, fiercer than fire, more impassable than the mountains, and harder than adamant. The ocean might be emptied, mount Meru be rooted up, and burning flames be swallowed down, more easily than the mind can be restrained. This is the agent that operates

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through the senses. Therefore it is the mind that must first be subdued. —*Vashishta* (*i.e. the Tamil Hindoo Vatham.*)

The heart is deceitful above all things and desperately wicked, who can know it ?—*Jeremiah* xvii. 9.

Do we not read of fire and hail, snow and vapour, stormy wind fulfilling His word? Shall there be a greater coldness in man than in the snow? more vanity in us than in a vapour? more inconstancy than in the wind? If the universal obedience of the creature to the will of the Creator cannot move us to the same affection and desire to serve and please Him, they will all conspire to testify against us and condemn us when God shall call unto them, saying, Hear, O heavens, and give ear, O earth, for the Lord hath spoken; I have nourished and brought up children, and they have rebelled against me.

TELUGU (PRIZE EXAMINATION).

J. GOLDINGHAM, ESQ.

Wednesday, 22nd June 1870. 10 A.M. to 1 P.M.

I.

Translate into English :

అప్పుడు బలిచక్రవర్తి విక్రమార్కునిచెయి తనచేతపట్టుకొని, తనసింహాసనము ద్గరికితీసుకొనిపోయి, అర్ధాసనముమీద కూర్చుండఁ బెట్టుకొనఁగా, అయ్యా! మునుపు రఁభోర్వసుల నాట్యమువల్ల దేవేంద్రుణ్ణిచూస్తిని; ఇప్పుడివరాహమునిమిత్తమై వచ్చి నిన్ను చూస్తిని; నేను కృతార్థుఁడనైతిని; నీవు విష్ణువుకు భూదానమిచ్చిన పుణ్యశాలివి; నీదర్శనమెంతటివారికి కలుగును? నేఁడునాకు సుదినమని, విక్రమార్కుఁడు చాలాసంతోషము చేయఁగా, బలిచక్రవర్తి సంతోషించి, నీవు భూలోకమందుఁడి దుష్టులనం దఱిణిన్నిశిక్షించి, శిష్టులను రక్షించి, అడిగినవారికెల్ల నవ్వారిగా ధనమిచ్చి, కీర్తిబొందితి, రాజ్యముచేయుచుండే సమాచారమువిని, నిన్ను చూడవలెనని పిలువనంపినాను అనిచెప్పి, రెండురత్నములు తెచ్చి, యీ రత్నములుకోరిన వస్తువులనిచ్చును. నీవుపుచ్చుకొమ్మని, విక్రమార్కునికి బహుమానముచేసి, తనమనిషిని కూడాయిచ్చి, ఈ పాతాళలోకమునుంచి భూలోకమునకు పిలుపు కొనిపోయి అక్కడదిగబెట్టిరమ్మని ఆమనిషితోచెప్పి, విక్రమార్కునికి శెలవిచ్చి పంపించెను.

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II.

Translate into Telugu:

About a year ago I sent a heifer of mine to the herd, and it ran away. From that time I have been searching for it, and as it was among the defendant's cattle, I asked (him) to give (it to me). But he said that this heifer was his own, and that he would not give it up. Some neighbours spoke to the defendant, and said, give him back his heifer; it is proper that the fine for trespass should be exacted. But he would not listen, and says, "I will not give up the heifer." Examine, I pray, this case and do me justice.

Make out the account of what cloth he has purchased up to this time. Balance the account, leaving out the cloth bought yesterday. The account ought not to remain unbalanced.

If eagles have been so bold as to kill a man, you will not be surprised to hear of one who ventured to steal a child. It is said that once, while some people were doing work in a field, a great eagle saw a child lying asleep on the ground. It seized the child, and went away with it. The people were frightened, and went off to the hills, where they knew the nest was. They saw the birds. The mother of the child with much difficulty went up and brought it away. The child was not injured.

GUJARATI (PRIZE EXAMINATION).

Rev. Dr. GLASGOW.

Thursday, 23rd June 1870. 3 P.M. to 6 P.M.

I.

Translate into English:

સન ૧૮૩૩ ની શીરૂઆતમાં રાજા પાછો ઈંગલંડ આવ્યો. પણ તેની પરકૃતી બગડેલી હતી તોપણ, મીસ ફાસટાઈલ નામની સતરી સાથે થોડા આડવાડીઆ રેહેવા સારૂ તે સપ-તેંબર મહીનામાં બરીસટલ ગયો, અનેં તયાંહાંથી ડેવનશાઈર જઈ તયાંહાં શીયાળો ફાહાડવાનો તેનો ઈરાદો હતો. તયાંહાં પછી નવમે દીવસે તેનેં તાવ આવ્યો. ડાકટર પરીચરડ અનેં દાકટર ફારેક એ બે વઈદ તેનેં અોષધ કરતા હતા. અોષ-ધથી થોડોવાર તેનેં ગુણ દીસવા લાગ્યો, પણ જલદીથી પાછો અગાઉનો દુષટ તાવ આવવા લાગ્યો, અનેં તેથી તે બેસુધ થયો તે કદી પાછો સુધી પર આવ્યો નહીં તથા બોલ્યો નહીં.

PRIZE EXAMINATION. CANDIDATES OF 1868.

તેજ ઊપદેશ તેને હરએક યુક્તિએ સતયવીશે સારા ઉદાહરણો દેખાડીને, તે થકી શો લાભ થાય છે, એ તેના મનમાં ઠલાવયું છતાં તે ઘણું કરીને સતયનો અંગીકાર કરશે. અસતયવાદી લોકોને સતયની મીઠાસ લાગવાસારૂ મોટી મેહેનત કરવી જોઈએ. તે બલાતકારે સીધી પામશે નહીં; પણ તેને એવું દેખાડવું કે, જેઓએ સતય આચરણ પરડયું, તે કેટલા સુખી છે, તથા સતયશીલ માણસોએ સતયનું પાલન કરવાસારૂ કેટલી મેહેનત લીધી, તથા તેથકી તેઓની કેટલી સુકીરતી થઈ; તેઓને ઊપદેશ કરતી વખત કલપીત વાતો રચીને ખોટાં ઊદાહરણો આપવાં નહીં. કાંઈ વાતઊપરથી આગલ કાંઈ સારૂં ઊતપન થરો તેસારૂ અસતયનો આશરય કરવો નહીં. સરવકાલ સતય પકડીને ચાલવું અને ઈશવરની કરૂપા મેલવવાની તજવીજ રાખવી.

પુલયો શું કરે છે રે, ભુલયો ભવકુપનાં પડયો,
મનુષય દેહરૂપી રે, ખોયો મણી હાથે ચઢયો; પુલયો॰ (ટેક)
ડાહયો થઈ દુનીઆમાં કરે છે, તેણે શું કરયું તારૂં કાજ?
તે ન જાણયું જે જવું પલકમાં, કેમ કરી રેહેશે લાજ?
ડહાપણ તારૂં જાણયું રે, જયારે જમ હાથે ચઢયો,
પુલયો શું કરે છે રે, ભુલયો ભવકુપનાં પડયો.
વાંકી મુછપર વાટજ ઊઠી, નરકની વાટે સંચરયો;
મીથયા જનુની ભારે મારી, આલયા, જનમ ધરયો ન ધરયો.
મોટ જેને જગી રે, અવસર આવી અડયો.

II.

Translate into Gujarati:

It has been remarked that, if the English were to quit India to-morrow, there would be no memorial nor vestige left of their sojourn in the land. But so it would not be. There have been imprinted broad,

PRIZE EXAMINATION. CANDIDATES OF 1868.

deep marks of good, which can never be effaced. Doubtless there are defects in what Englishmen have done for India; but of necessity there are such in all human institutions, and ever will be to the end. Contrast, however, the state of the country now with what it was, when even the noblest monarchs of the creed of Islam held her in their grasp; and then the blessings she enjoys under English rule will be seen in all their clearness.

MARATHI (PRIZE EXAMINATION).

Rev. A. H. FROST.

Monday, 27th June 1870. 3 P.M. to 6 P.M.

Translate into English:

1. विधवांच्या स्थितीचें वर्णन करितांना त्यांच्या दुर्गुणांवर व दोषांवर काळ्या रंगाचा कुंचा फिरविला आहे किंवा त्यांच्या सद्गुणांवर व सदाचरणांवर सौन्याचो छाया पाडली आहे असें नाहीं. या विषयाचो मला जितको माहिती झाली आहे व तो लिहून दाखविण्याची मजमध्यें जितको शक्ति आहे तितकी प्रसंगाच्या अनुकूलतेप्रमाणें खर्चून मी आपल्या सूज्ञ वाचणारांस हा लाहानसा ग्रंथ सादर केला आहे. याजवरून जर त्यांस आपल्या विधवांच्या स्थितिविषयीं कळवळा उत्पन्न झाला आणि जर ते वर सांगितलेल्या सुधारलेल्या व विचारवंत पण आचाररहित, लोकांच्या सत्यत्वास मिळून त्यांस अश्वासन देऊन पुनर्विवाह चालू करूं लागले तर माझा श्रमाचें सार्थक होईल.

2. छायादेखोनीआपली ॥ शंकाअंतरींवाटली ॥
ऐसेंभ्रमाचेंलक्षण ॥ भुलेआपणाआपण ॥
मुखेंबोलतांउत्तर ॥ तेथेंझालेंप्रत्युत्तर ॥
डोळांघालितांआंगोळी ॥ एकाचींतींदोनझालीं ॥
पोटींआपणकल्पिलें ॥ तेंचिआलेंसेंवाटलें ॥
दासम्हणेहेउपाधी ॥ शंकाधरितांअधिकबाधी ॥

Translate into Marathi:

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3. A barber went to shave a celebrated lawyer, who bade him sit down until he had finished some writing. The lawyer observed the waiting barber dip his finger into some glasses of jelly, that happened to be standing on the sideboard, and lick it. The lawyer then quietly sat to be shaved, and by way of punishing the barber, said, 'What do you think of my plan of getting rid of rats? I put arsenic in jelly set on the sideboard, as if for a party, and the rats are sure to eat it and die.' The poor barber hurried up his traps, ran off, turned sick several times in his way home, rushed into bed and called out to his wife, 'I'm a dead man.' A doctor came, found him at the last gasp, and then the same lawyer being sent for to make the dying man's will, confessed the trick, and so cured the barber whom he had so nearly killed.

4. He had only one pistol, and this he resolved to employ only for the purpose of intimidation: he took it in one hand, and holding his sword unsheathed in the other pushed open the door without noise, but quickly, so that in an instant if need were, he could have sprung upon the person within it. Thus armed, and with expectation on his face, how great a change came over him when, just before the now widely opened door, he beheld the guardian of the house stretched on a couch fast asleep. He lay on his back, both hands, with the fingers interlaced, covering his eyes, probably to exclude the light of the lamp which burned on a table near to him, on which also lay a pistol, ready prepared in case of danger. He slept as weary men do sleep, and a single stroke would then have rendered De Lacy's passage clear. He did extend his arm, but it was only to extinguish the light, and thrusting the pistol into his own belt, he quietly went on in the dark, believing himself safer without light when the whole house through which he had to pass was in the same state.

SANSKRIT (PRIZE EXAMINATION).

E. B. COWELL, ESQ.

Friday, 17th June 1870. 10 A.M. to 1 P.M.

A. *Translate into English:*

I.

वैश्यवृत्त्यापि जीवंस्तु ब्राह्मणः क्षत्रियोऽपि वा।
हिंसाप्रायां पराधीनां कृषिं यत्नेन वर्जयेत्॥
कृषिं साध्विति मन्यन्ते सा वृत्तिः सद्विगर्हिता।
भूमिं भूमिशयांश्चैव हन्ति काष्ठमयोमुखम्॥

Manu.

PRIZE EXAMINATION. CANDIDATES OF 1868.

II.

Vaśishṭha consoles Aja on the death of his queen.

तदलं तदपायचिन्तया
विपदुत्पत्तिमतामुपस्थिता ।
वसुधेयमवेक्ष्यतां त्वया
वसुमत्या हि नृपाः कलत्रिणः ॥
रुदता कुत एव सा पुन-
र्भवता नानुमृतापि* लभ्यते ।
परलोकजुषां स्वकर्मभि-
र्गतयो भिन्नपथा हि देहिनाम् ॥
मरणं प्रकृतिः शरीरिणां
विकृतिर्जीवितमुच्यते बुधैः ।
क्षणमप्यवतिष्ठते श्वसन्
यदि जन्तुर्ननु लाभवानसौ† ॥

Raghuvaṅśa.

III.

यथा हि पश्वादयः शब्दादिभिः श्रोत्रादीनां संबन्धे सति शब्दादिविज्ञाने प्रतिकूले जाते ततो निवर्तन्ते ऽनुकूले च प्रवर्तन्ते, यथा दण्डोद्यतकरं पुरुषमभिमुखमुपलभ्य 'मां हन्तुमयमिच्छतीति' पलायितुमारभन्ते, हरितटपूर्णपाणिमुपलभ्य तं प्रत्यभिमुखीभवन्ति, एवं पुरुषा अपि व्युत्पन्नचित्ताः क्रूरदृष्टीनाक्रोशतः खड्गोद्यतकरान् बलवत उपलभ्य ततो निवर्तन्ते तद्विपरीतान् प्रत्यभिमुखीभवन्ति । अतः समानः पश्वादिभिः पुरुषाणां प्रमाणप्रमेयव्यवहारः ।

Śankara.

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* अनुम्रियत इत्यनुमृत् क्विप् । तेन अनुमृता अनुमृतवतापि भवता पुनर्न लभ्यते । *Comm.*

† जीवने यथालाभं संतोष्टव्यमलभ्यलाभात् मरणे तु न शोचितव्यमस्य स्वाभाव्यादिति भावः । *Comm.*

FINAL EXAMINATION. CANDIDATES OF 1868.

B. *Translate into Sanskrit:*

'What are you come here for, young men?' he said, addressing himself to the surprised audience; 'are you come among the most lovely works of God to break his laws? Have you left the works of man—the houses and the cities that are but clay and dust, like those that built them—and are you come here among the peaceful hills and by the quiet waters, that will last while aught earthly shall endure, to destroy each other's lives? Have you brothers, sisters, fathers that have tended you, and mothers that bore you, and friends that called you a piece of their own heart, and is this the way you take to make them childless and brotherless and friendless?'

C. 1. Give instances of the various ways in which the final म् of a root can be changed before an affix, in declension and conjugation.

2. What prepositions sometimes lose their initial अ in composition? Give instances.

ARABIC (PRIZE EXAMINATION).

Colonel J. W. J. OUSELEY.

Friday, 17th June 1870. 10 A.M. to 1 P.M.

(A.) *Translate into English:*

I. Tarikhe Timuri, p. 211. From قلما فصل to بديه, p. 212.

II. Ajaeeb al Mukhlookat, p. 120, فصل to موفق.

(B.) *Translate into Arabic:*

The tribe of Koreish, by fraud or force, had acquired the custody of the Caaba, the sacerdotal office devolved on the grandfather of Mahommed, and the family of the Hashemites from whence he sprung was the most respectable and sacred in the eyes of their country.

The precincts of Mecca enjoyed the rights of sanctuary, and in the last month of each year, the city and the temple were crowded with a long train of pilgrims who presented their vows and offerings in the house of God. The same rites which are now performed by the faithful Mussleman were invented and practised by the superstition of the idolaters. At a great distance they cast away their garment, seven times, with hasty steps they encircled the Caaba and kissed the black stone, and the pilgrimage was achieved as at the present hour by a sacrifice of sheep and camels, and the burial of their hair and nails in the consecrated ground.

PRIZE EXAMINATION. CANDIDATES OF 1868.

PERSIAN (PRIZE EXAMINATION).

Colonel J. W. J. OUSELEY.

Monday, 27th June 1870. 10 A.M. to 1 P.M.

I.

Translate into English:

شکر ایزد جهان آرایرا که یورش عرصهٔ دل کشای کشمیر خاطر خواه بانجام رسید و مخالفان دولت قاهره به جزای خود رسیدند و آن گلستان همیشه بهار از خس و خاشاک اهل فتنه و فساد پاک شده از آغازاورنگ‌آرای سلطنت و عنفوان تخت نشینی و معدلت روائی‌ماهوش‌مندان آگاه‌دل اندکی به قلاوزی بخت بیدار توانند پی برد که حضرت دادار جان بخش خرد آفرین چگونه مرحمت هائی بزرگ و لطف‌هائی شکرف که در حوصلهٔ روز کار در نیاید بما عنایت فرموده است و مجددا آنچه از جلائل عنایات الهی و عطایای نا متناهی که درین یورش نسبت با ین نیازمند درگاه الهی بظهور آمده شکر آن بکدام زبان گفته آید که شرح شمهٔ از ان در وسعت آباد دل نه گنجد هرگاه چنین باشد اندکی از بسیار آن در دفترها کجا گنجایش داشته باشد لیکن رسمی است سنجیده وروشی است پسندیده که بزرگان خدا او! اندکی از عطایای الهی برای مخلصان درگاه و هواخوهان دولت می‌گویند ۞

سخن سنجی آمد ترازو بدست * درستِ زر اندوده‌رامی‌شکست
تصرف در ان سکه نگذاشتم * کزان سیم در زر خبر داشتم
گر انگشت من حرف گیری کند * بدانم کسی کو دبیری کند
ولی چون قوی دست شد پشت من * نشد حرف گیر کس انگشت من
نه بینم بدخواهی اندر کسی * که من نیز بد خواه دارم بسی
ره من همه زهر نوشیدن ست * هنر جستن و عیب پوشیدنست
بدان ره که خود را نمودم نخست * قدم داشتم تا بآخر درست
دباغت چنان دادم این چرمرا * که برتابد آسیب و آزرمرا

II.

PRIZE EXAMINATION. CANDIDATES OF 1868.

Translate into Persian:

In parts of Arabia the heat of the sun is tempered by the shade of trees, and by a number of fresh streams, that flow down the mountains. Hence it is, that the inhabitants derive almost all their notions of felicity, from freshness and verdure. It is a maxim among them that the three most charming objects in nature are a green meadow, a clear rivulet, and a beautiful woman, and that the view of these objects at the same time affords the greatest delight imaginable. Mahommed was so well acquainted with the maxim of his countrymen that he described the pleasures of heaven to them under the allegory of cool fountains, green bowers, and black-eyed girls. In the Coran he mentions a garden called Irem, which was once seen by an Arabian who wandered very far into the deserts in search of a lost camel: the name was probably invented as the type of a future state of happiness.

INDIA FOREST DEPARTMENT. Jan. 1870.

6.—PAPERS SET AT AN EXAMINATION FOR THE INDIA FOREST DEPARTMENT.

JANUARY 1870.

HANDWRITING.

Copy as much of the following letter as you can in half an hour, taking care to copy neatly and correctly and to write as well as you can.

N.B.—Good handwriting is held to consist chiefly in the *clear formation of the letters of the alphabet.*

Time occupied, from to .

5, Westminster Chambers, Victoria Street,
Dear Sir, Westminster, 22 May 1869.

Although I have purposely abstained from taking any part in the animated discussions that have been going on as to the sites for the Courts of Justice, and the circumstances connected with the purchase of the Carey Street land and its results, I have, of course, taken much interest in the subject; and I am very desirous, as I was indebted to you for the appointment which placed the acquisition of this property in my hands, to state, for your information, the facts connected with the estimate, which was made by Mr. Hunt, and with the purchase of the property, for the results of which I am alone responsible.

	£	s.	d.	£	s.	d.
Mr. Hunt's estimate of the value of the property was - -				750,000	0	0
But it did not include a house in Fleet Street, which, on my recommendation, the First Commissioner purchased, and the interests in which, including trade compensation, cost - - -				17,000	0	0
				767,000	0	0
The actual sum given by me, or paid under the awards of juries and arbitrators, including a sum of 3,249*l.* paid to weekly tenants, amounted to - - - - - - -	762,214	7	10			
And for cases where the owner could not be found, and a valuation was therefore made by a surveyor nominated by the magistrates, the sums paid into Court amounted to - -	3,226	5	0			
Total - - - £				765,440	12	10
Leaving balance to credit of - - £				1,559	7	2

DICTATION (1).

Queen Catherine, as we have already seen, had been called upón, at the coronation of Anne, to renounce her title, and she had refused. Mary had been similarly deprived of her rank as princess; but either her disgrace was held to be involved in that of her mother, or some other cause, perhaps the absence of immediate necessity, had postponed

the demand for her own personal submission. As, however, on the publication of the second marriage, it had been urged on Catherine that there could not be two queens in England, so on the birth of the Princess Elizabeth, an analogous argument required the disinheritance of Mary. It was a hard thing; but her mother's conduct obliged the king to be peremptory. She might have been legitimatized by act of parliament, if Catherine would have submitted. The consequences of Catherine's refusal might be cruel, but they were unavoidable. Mary was not with her mother. It had been held desirable to remove her from an influence which would encourage her in a useless opposition; and she was residing in Essex, under the care of Lord Hussey and the Countess of Salisbury. Lord Hussey was a dangerous guardian; he was subsequently executed for his complicity in the Pilgrimage of Grace, the avowed object of which was the restoration of Mary to her place as heir apparent. We may believe, therefore, that while under his surveillance she experienced no severe restraint, nor received that advice with respect to her conduct which prudence would have dictated. Lord Hussey, however, for the present enjoyed the confidence of the king, and was directed to inform his charge, that for the future she was to consider herself not as princess, but as the king's natural daughter, the Lady Mary Tudor. The message was a painful one; painful, we will hope, more on her mother's account than on her own; but her answer implied that, as yet, Henry VIII. was no object of especial terror to his children.

DICTATION (2).

The confusions which overspread England after the murder of Charles I. proceeded as well from the spirit of refinement and innovation which agitated the ruling party as from the dissolution of all that authority, both civil and ecclesiastical, by which the nation had ever been accustomed to be governed. Every man had framed the model of a republic, and, however new it was or fantastical, he was eager in recommending it to his fellow citizens, or even imposing it by force upon them. Every man had adjusted a system of religion, which being derived from no traditional authority, was peculiar to himself, and, being founded upon supposed inspiration, not on any principles of human reason, had no means, besides cant and low rhetoric, by which it could recommend itself to others. The levellers insisted on an equal distribution of power and property, and disclaimed all dependence and subordination. The Millenarians, or Fifth Monarchy men, required that Government itself should be abolished, and all human powers be laid in the dust, in order to pave the way for the dominion of Christ, whose second coming they suddenly expected. There were others who even insisted that the obligations of morality and natural law were suspended, and that the elect, guided by an internal principle more perfect and divine, were superior to all considerations of justice and humanity. A considerable party declaimed against tithes and hiring priesthood, and were resolved that the magistrate should not support, by power or revenue, any ecclesiastical establishment. Another party inveighed against the law and its professors, and on pretence of rendering more simple the distribution of justice were desirous of abolishing the whole system of English jurisprudence, which seemed interwoven with monarchical Government. The bands of society were everywhere loosened, and the irregular passions of men were encouraged by speculative principles still more irregular.

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ADDITION.

Add up as many of the columns as you can in the time allowed ($\frac{1}{2}$ an hour), placing the answers in the spaces below the columns.

Time occupied, from to

You are not required to *copy out* the sums, but to write the answers in the *spaces* below each column.

N.B.—*You had better occupy the whole time allowed.*
No additional marks will be given for rapidity.

£	s.	d.	£	s.	d.	£	s.	d.
298772	2	6	358756	3	7	476239	15	7
95016	18	2	642935	8	1	86631	7	7
8797	7	7	891174	2	10	267873	13	2
817637	6	9	23276	5	9	89768	12	11
65211	6	8	815975	16	11	786178	2	4
69840	3	7	541263	9	5	69263	15	4
984917	10	8	97239	2	5	373041	2	7
631902	8	6	23297	12	5	232087	9	7
465983	17	11	147732	6	2	318019	3	8
840732	9	2	90574	2	1	22896	10	10
29200	7	9	361211	6	7	209172	1	9
54346	3	6	189603	2	5	859276	3	8
873	2	1	7624	6	2	31847	1	2
566984	5	4	741	18	2	34232	1	11
24761	18	4	19109	19	10	621140	15	6
74573	2	4	36197	11	7	426409	12	8
351867	4	11	302475	11	6	314197	6	5
99374	5	7	538097	1	2	381397	7	1
98290	2	10	476385	16	3	744032	8	6

Answer

£	s.	d.	£	s.	d.	£	s.	d.
156917	11	9	274032	12	1	439250	13	2
6679	14	5	166197	11	7	14691	13	9
16391	1	4	44687	17	7	4752	1	3
39142	5	2	23109	19	10	11835	0	3
398136	2	6	23109	19	10	734321	18	9
376514	10	5	74321	18	9	74321	18	9
403750	5	8	102376	18	3	810327	4	4
76899	13	7	32752	15	3	42361	8	9
753276	5	9	39642	5	2	299653	1	8
112935	8	1	310397	8	7	291414	12	4
675940	15	2	352376	0	9	129374	5	7
153748	2	9	161094	8	9	612356	1	2
313257	8	11	31140	15	6	810732	17	1
239763	2	1	231287	14	7	141263	9	5
94636	1	9	29215	9	5	691040	3	7
803421	3	6	83215	9	5	708416	19	7
673159	0	1	173617	6	8	41220	4	9
813214	2	6	8724	2	10	71425	3	3
34728	12	6	310397	8	7	93198	10	8

Answer

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£	s.	d.	£	s.	d.	£	s.	d.
120421	7	0	789409	1	0	52350	11	1
107319	8	4	610732	17	1	234106	7	8
106408	13	10	107568	3	11	612356	1	2
65416	18	2	191880	19	2	37	9	1
91105	2	1	6781	2	2	134139	8	5
16391	1	4	783130	2	4	531397	7	1
231485	15	5	15691	13	9	12844	9	8
20242	0	7	633925	4	11	41752	15	3
228416	9	10	810563	4	1	131528	3	6
19631	7	7	649603	2	5	181528	3	6
769276	3	8	19284	10	2	373041	2	7
274086	3	3	125176	13	7	63177	2	5
861014	8	8	11835	0	3	371140	15	6
234526	1	1	111397	7	1	614275	8	2
106408	13	10	32752	15	3	209945	2	11
106747	18	3	836	2	7	234526	1	1
17218	9	6	63276	5	9	43109	19	10
326408	13	10	236	3	1	41047	3	2
34917	10	8	4636	11	4	82971	3	2

Answer

£	s.	d.	£	s.	d.	£	s.	d.
274032	12	1	436197	11	7	417116	15	7
719058	15	1	106549	3	3	38839	7	1
416109	8	9	68972	7	1	214376	15	10
72505	8	2	108106	2	2	268549	16	7
692765	1	2	231902	7	6	98132	1	6
791023	13	8	905002	0	7	234016	3	9
935112	1	8	756409	12	8	10919	1	5
348896	17	2	532121	7	6	21595	3	8
941013	1	4	105217	3	7	925978	11	1
102276	3	5	71476	3	9	739369	10	2
89318	2	6	167932	1	3	125643	9	9
254321	18	9	102376	17	1	577667	13	11
649603	2	5	463487	1	10	3481	16	8
196408	13	10	58209	1	2	71834	5	9
87163	9	11	659276	3	8	83649	2	7
156917	11	9	761089	15	9	81906	10	7
76752	15	3	711015	0	1	10847	7	7
4785	13	11	106073	9	7	93756	2	2
514376	15	10	60616	3	7	227	18	9

Answer

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ARITHMETIC.

Time allowed, $2\frac{1}{2}$ hours.

You are requested to write your name at the top *of each of your papers; to put the* number *to each question; to send up the* working *as well as the answers; and to send up your work on* complete sheets *of paper, not on* scraps, *which are apt to be lost.*

N.B.—*You are particularly recommended to answer the questions in the order in which they are set; not omitting any one unless you are unable to do it.*

1. Reduce 3 acres 1 rood 2 perches 11 yards 2 feet to inches.
2. If $3\frac{1}{2}$ lbs. of sugar cost 1*s.* $10\frac{3}{4}$*d.*, how much may be bought for 9*l.* 9*s.* 7*d.* ?
3. Find (by Practice) the value of 3 ozs. 5 dwts. 8 grs. of gold at 5*l.* 18*s.* 9*d.* per ounce.
4. Find the simple interest on 6,870*l.* for 73 days at $3\frac{1}{2}$ per cent. per annum.

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5. Add together $\frac{7}{8}$, $3\frac{1}{4}$, $2\frac{2}{3}$, and $\frac{5}{6}$.
6. Subtract $4\frac{2}{3}$ from $12\frac{1}{8}$.
7. Multiply together $\frac{5}{7}$, $2\frac{1}{3}$, $\frac{1}{10}$, and $\frac{5}{6}$.
8. Divide $10\frac{1}{4}$ by $3\frac{1}{6}$.

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9. Add together 730·07321, 5·97786, ·009763, 5490·8872, and 27.
10. Subtract 13·5863 from 20·17301.
11. Multiply 83·402 by 3·7062.
12. Divide 3846·87 by 52830 to 5 places of decimals.
13. Give the value of ·325 of a pound troy in grains.

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14. In 2,426,031 pints how many quarters, bushels, pecks, &c. ?
15. A bankrupt's debts amount to 30,732*l.* 12*s.* 6*d.* and his assets to 10,756*l.* 8*s.* $4\frac{1}{2}$*d.*, what will his creditors receive in the pound ?
16. Find (by Practice) the value of 12 miles 3 furlongs 16 poles of telegraph wire at 7*l.* per mile.
17. Find the amount of 12,600*l.* in 3 years at $2\frac{1}{2}$ per cent. per annum compound interest, neglecting fractions of a penny.

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18. Add together $5\frac{1}{3}$, $\frac{3}{16}$, $\frac{1}{2}$, and $\frac{4}{5}$.
19. Subtract $9\frac{1}{9}$ from $19\frac{1}{19}$.
20. Multiply together $\frac{3}{4}$, $6\frac{2}{7}$, $1\frac{1}{3}$, and $\frac{1}{22}\frac{3}{2}$.
21. Divide $7\frac{1}{3}$ by $17\frac{3}{5}$.

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22. Add together 6384·27, ·00705, 67·307, 500·67293, and 2·099091.
23. Subtract 13·117 from 26·0307.
24. Multiply ·07066325 by 1·007023.
25. Divide ·1265216 by ·054.
26. Reduce 3*s.* 6*d.* to the decimal of 6*s.* 8*d.*

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27. In 342,076,358 inches how many miles, furlongs, &c. ?
28. If 30 men build a wall 175 feet long and 6 feet high in 8 days of 8 hours, how many men will be required to build a wall twice the length and twice the height in 8 days of 10 hours ?

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29. Find (by Practice) how much I can save per annum out of an income of 200*l.*, my daily expenses being 9*s.* 6½*d.*
30. In what time will 670*l.* amount to 892*l.* 15*s.* 6*d.* at 4¾ per cent. ?

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31. Add together $3\frac{1}{11}$, $\frac{2}{9}$, $\frac{1}{6}$, and $\frac{4}{33}$.
32. Subtract $8\frac{1}{16}$ from $13\frac{1}{40}$.
33. Multiply together $\frac{1}{13}$, $3\frac{3}{7}$, $2\frac{8}{9}$, $\frac{7}{16}$, and $\frac{1}{12}$.
34. Divide 8 by $3\frac{5}{6}$.

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35. Add together 13·7 of 2*s.* 8*d.* and 5·16 of 1*l.* 3*s.* 2*d.*, and give the answer in pence and the decimal fraction of a penny.
36. Subtract 5·12 of an ounce from ·439 of a cwt.
37. Multiply ·00706325 by 5840·39.
38. Divide 16·3704 by 290·4 to 5 places of decimals.
39. Give the value of ·028125 of a ton in lbs.

HIGHER ARITHMETIC.

Time allowed, $2\frac{3}{4}$ hours.

You are requested to write your name at the top *of each of your papers; to put the* number *to each question; to send up the* working *as well as the answers; and to send up your work on* complete sheets *of paper, not on* scraps, *which are apt to be lost.*

1. Show that the $\sqrt{2}$ lies between $\frac{17}{12}$ and $\frac{41}{29}$.
2. Extract the cube root of 669·921875 cubic feet, and reduce the result to inches.
3. What is the present worth of 1,842*l.* 15*s.*, payable a quarter of a year hence, at 5 per cent. ?
4. What length of paper 22½ inches wide would be required to paper the walls of a room 18 ft. 9 in. long, 13 ft. 3 in. broad, and 14 ft. 6 in. high ?
5. Express 4 acres 2 roods 16 perches as the decimal of a square mile.
6. Multiply by duodecimals 7 ft. 3 in. 5 pts. by 5 ft. 7 in. 4 pts. and the product by 4 ft. 2 in. What does the product become when expressed in cubic feet and inches ?
7. A man purchases 700*l.* stock in the 3 per cent. consols at 94½, and also invests 585*l.* in the purchase of Russian 5 per cent. stock at 97½. How much stock has he standing in his name ? If he sells out of the 3 per cents. at 95 and out of the 5 per cents. at 96¼, does he gain or lose by the transaction, and how much ?
8. Divide 91·863 by 87·56.
9. A tradesman's stock in trade is valued on January 1st, 1868, at 8,000*l.*, he has also 350*l.* in cash and owes 1,870*l.*; during the year his personal expenses, 300*l.*, are paid out of the proceeds of his business, and on January 1st, 1869 his stock is valued at 7,950*l.*, he has 570*l.* in cash and owes 1,510*l.* What is the whole profit on the year's transactions after deducting 5 per cent. interest on the capital with which he began the year ?
10. A grocer buys coffee at the rate of 8*l.* 10*s.* per cwt. and chicory at 2*l.* 10*s.* per cwt., and mixes them in the proportion of 5 parts chicory to 7 coffee; at what rate must he sell the mixture so as to gain 16⅔*l.* per cent. on his outlay ?

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11. Two clocks point to 2 o'clock at the same instant on the afternoon of Christmas-day ; one loses 8 seconds, and the other gains 9 seconds in 24 hours : when will one be half an hour before the other, and what time will each clock then show ?

12. Three sacks contain *equal* quantities of wheat, barley, and oats, and a mixture is formed by taking 60 per cent. from the 1st sack, 40 per cent. from the 2d, and 70 per cent. from the 3d. Find what per-centage of the whole quantity of corn is taken away. A candidate being required to answer this question reasons as follows : " 50 is the mean between 60 and 40, and " 60 is the mean between 50 and 70, therefore 60 is the mean " per-centage required." Is this reasoning erroneous ? If so show clearly where the error lies.

13. If the light received by an object at different distances from a candle be inversely as the squares of the distances, and a mirror reflect $\frac{4}{9}$ of the light which falls on it, at what distance from the candle must an object be placed in order to receive the same amount of light directly which it would receive by reflection from the mirror so placed that the whole distance traversed by the light is 5 feet ?

SUBJECT FOR ENGLISH COMPOSITION.

Time allowed, 2 hours.

In this Exercise attention should be paid to handwriting, spelling, punctuation, grammar, and style.

France *or* Germany in 1869.

The Composition should fill not less than two folio pages.

ALGEBRA.

Time allowed, 3 hours.

1. Find the product of $a+b-c$, $a+c-b$, $b+c-a$, and $a+b-c$.

2. Divide $2x^5y^{-3} - 5x^4y^{-2} + 7x^3y^{-1} - 5x^2 + 2xy$ by $x^3y^{-3} - x^2y^{-2} + xy^{-1}$.

3. Simplify—

$$(1)\ \frac{3}{1-2x} - \frac{7}{1+2x} - \frac{4-20x}{4x^2-1}.$$

$$(2)\ \frac{x}{-a} - \frac{x}{x+a} - \frac{\dfrac{x+a}{x-a} - \dfrac{x-a}{x+a}}{\dfrac{x+a}{x-a} + \dfrac{x-a}{x+a}}$$

4. Reduce to its lowest terms—

$$\frac{2x^5 - 11x^2 - 9}{4x^5 + 11x^4 + 81}.$$

5. Define a^m where m is a positive integer, and hence show that

$$a^m \times a^n = a^{m+n}.$$

Assuming this equation to hold for all values of m and n, find the meanings of $a^{\frac{p}{q}}$ and a^{-n}.

6. Solve the following equations:—

$$(\alpha)\ \frac{5}{2x-5}+\frac{1}{x-3}=\frac{6}{3x-1}.$$

$$(\beta)\ \frac{x}{7}+\frac{21}{x+5}=3\tfrac{2}{7}.$$

$$(\gamma)\ 6\left(\frac{x}{y}-\frac{y}{x}\right)=5=6\left(\frac{1}{x}+\frac{1}{y}\right).$$

7. Extract the square root of—

$$(1)\ 16+5\sqrt{7}\ :\ (2)\ 5+\sqrt{10}-\sqrt{6}-\sqrt{15}.$$

8. A railway train running from London to Edinburgh meets on the way with an accident, which causes it to diminish its speed to $\frac{1}{3}$rd of what it was before, and in consequence it is 7 hours late. If the accident had happened 60 miles nearer Edinburgh, the train would have been only 3 hours late. Find the rate of the train before the accident occurred.

9. If four quantities are proportionals, and the second is a mean proportional between the third and fourth, the third will be a mean proportional between the first and second.

10. Show how to find the sum of a given number of quantities in Geometrical Progression.

If the series is continued to infinity show that each term bears a constant ratio to the sum of all that follow it.

11. Given that the volumn of a sphere varies as the cube of its radius, prove that the volumn of a sphere whose radius is 6 inches is equal to the sum of the volumns of three spheres whose radii are 3, 4, 5 inches.

12. Define a logarithm, and the characteristic of a logarithm. Show that the latter can always be determined by inspection in the common system of logarithms. Given log 3 = ·477121, log 7 = ·845098, find log 147, and the logarithm of $\left(\frac{9}{343}\right)$.

EUCLID.

Time allowed, 3 hours.

1. If two triangles have two sides of the one equal to two sides of the other, each to each, but the angle contained by the two sides of one of them greater than the angle contained by the two sides equal to them, of the other; the base of that which has the greater angle shall be greater than the base of the other.

2. The three interior angles of any triangle are together equal to two right angles.

3. Describe a square that shall be equal to a given rectilineal figure.

4. If in a circle two straight lines cut one another, which do not both pass through the centre, they do not bisect each other.

5. If from any point without a circle two straight lines be drawn, one of which cuts the circle, and the other touches it; the rectangle contained by the whole line which cuts the circle, and the part of it without the circle, shall be equal to the square of the line which touches it.

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6. Similar polygons may be divided into the same number of similar triangles, having the same ratio to one another that the polygons have.
7. Similar triangles are to one another in the duplicate ratio of their homologous sides.
8. If from any point without a circle lines be drawn touching it, the angle contained by the tangents is double the angle contained by the line joining the points of contact and the diameter drawn through either of them.
9. The two right lines which join the opposite extremities of two parallel chords of a circle intersect in a point in that diameter which is perpendicular to the chords.
10. ABC is a semicircle, ADC a quadrant, upon the same line AC and on the same side of it: from any point B in the semicircle draw BA, BDC, and show that BA and BD are equal.
11. With a given radius describe a circle touching two given circles.

TRIGONOMETRY AND THE USE OF LOGARITHMS.

Time allowed, 3 hours.

1. Define the sine of an angle, and state the convention by which its algebraic sign is determined. Find all the values of θ less than two right angles which make $\sin 3\theta + \cos 3\theta = 0$.
2. In the ordinary tables the sines and cosines of angles are recorded up to 45° only: explain how those of angles up to 180° may thence be found. Show why an angle which is nearly a right angle cannot be found so accurately when its sine is given as when its cosine is given.
3. Find by logarithms $\frac{(\cdot 006)^5}{125}$. Also find L. sin 60°.
4. Prove the following formulæ—

$$(\alpha)\ \tan(A+B) = \frac{\tan A + \tan B}{1 - \tan A \tan B}.$$

$$(\beta)\ \sin 2A = \frac{1 - [\tan(45° - A)]^2}{1 + [\tan(45° - A)]^2}.$$

$$(\gamma)\ \sin 3\theta = 4 \sin\theta \cos(30° + \theta) \cos(30° - \theta).$$

5. Define the circular measure of an angle. Apply it to find the distance at which a building 50 feet wide will subtend an angle of 3′.
6. Prove that $\theta = \pm 30°$ satisfies the equation:

$$\tan(45° - \theta) + \cot(45° - \theta) = 4.$$

7. In a triangle, of which a, A, and c are given, show that

$$a \cos C = \pm \sqrt{a^2 - c^2 (\sin A)^2};$$

and that if $\tan\varphi = \frac{a}{c \cos A}$

$$\cos C = \frac{\pm \sqrt{\sin(\phi - A) \sin(\phi + A)}}{\sin\phi \cos A};$$

also that ϕ will always be nearer to a right angle than A.

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8. A man observes the elevation of a mountain top to be 15°, and after walking 3 miles directly towards it on level ground the elevation is 18° : find his distance from the mountain.

9. Investigate the area of a triangle of which the sides are given. Find the area of a triangle of which the sides are 5, 7, and 8 chains respectively.

10. In a right-angled triangle prove $\cot \frac{A}{2} = \frac{b+c}{a}$, if C be the right angle. If the logarithms of a, b, and c be given, show how that of $\cot \frac{A}{2}$ may be found by help of the tables without first finding b and c.

Ex. log. a = ·7525750, log. b = ·30103, log. c = ·7781513.

Log. 1·4109 = ·1494962 diff. 308.
Log. 1·7109 = ·2332246 diff. 254.
Log. 1·7320 = ·2385479 diff. 251.
Log. 2 = ·3010300.
Log. 3 = ·4771213.
Log. 3·14159 = ·4971495.
Log. 5·7295 = ·7581167 diff. 76.
Log. 6·2208 = ·7938465.

L. sin 3° = 8·7188002.
L. sin 15° = 9·4129962.
L. cos 15° = 9·9849438.
L. sin 18° = 9·4899824.
L. cos 18° = 9·9782063.
L. tan 60° = 10·2385606.
L. cos 60° = 9·6989700.
L. cot 35° 15′ 50″ = 10·1505231 diff. for 10″ 447.

FRENCH.

Time allowed, 1½ hours.

Translate into English :

Après la haine, la passion la plus vive de Sieyès c'était la peur. Il se croyait toujours menacé, et alors il cherchait quelqu'un qu'il pût exposer à sa place. Un jour qu'on lui annonça qu'un des hommes qu'il voyait le plus était arrêté : "Cet homme, dit-il, ne pense jamais qu'à me com- " promettre," et il appuya de toutes ses forces les charges qui pesaient sur cet homme. Au commencement de sa carrière il était fort désintéressé, parce qu'il ignorait le prix de l'argent, comme les lions ne sont cruels que lorsqu'ils ont goûté du sang. Dès qu'il eût découvert ce que l'argent pouvait rapporter, il changea de caractère, et il crut qu'il n'en pouvait avoir assez. Il disait à une des ses amies qui le lui reprochait : "Voyez- " vous, quand j'allais à pied, les gens qui me rencontraient disaient du mal de moi et je l'entendais ; à présent je vais en voiture, et je ne l'entends pas : voilà la différence." Après la chûte de la Révolution il fut le promoteur ou le partisan de toutes les mesures rigoureuses, sans vouloir paraître en première ligne. La nuit du 18 fructidor, il était derrière une espèce de rideau qui séparait en deux l'estrade où siégeaient les députés, et il passait son bras par une ouverture pour donner les noms qu'il faisait ajouter aux listes de proscription.

BENJAMIN CONSTANT.

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Et d'abord, on ne peut nier que Martière et Valeur ne soient souvent séparées. Quand nous disons à un homme :—Portez cette lettre à son adresse, allez-moi chercher de l'eau, enseignez-moi cette science ou ce procédé, donnez-moi un conseil sur ma maladie ou mon procès, veillez à ma sûreté pendant que je me livrerai au travail ou au sommeil ;—ce que nout réclamons c'est un Service, et à ce service nous reconnaissons, à la face de l'univers, une Valeur, puisque nous le payons volontairement par un service équivalent. Il serait étrange que la théorie refusât d'admettre ce qu'admet dans la pratique le consentement universel. Il est vrai que nos transactions portent souvent sur des objets matériels ; mais qu'est-ce que cela prouve ? C'est que les hommes, par prévoyance, se préparent à rendre des services qu'ils sauront être demandés ; que j'achète un habit tout fait, ou que je fasse venir chez moi un tailleur pour travailler à la journée, en quoi cela change-t-il le principe de la Valeur, au point surtout de faire qu'il réside tantôt dans l'habit, tontôt dans le service ? On pourrait poser ici cette question subtile: Faut-il voir le principe de la valeur dans l'objet matériel, et de là l'attribuer, par analogie, aux services? Je dis que c'est tout le contraire : il faut le reconnaître dans les services, et l'attribuer ensuite, si l'on veut, aux objets matériels.

BASTIAT.

GERMAN.

Time allowed, 1½ hours.

Translate into English :--

In einer Gegend des Harzes wohnte ein Ritter, den man gewöhnlich nur den blonden Eckbert nannte. Er war ohngefähr vierzig Jahr alt, kaum von mittler Größe, und kurze hellblonde Haare legen ſchlicht und dicht an ſeinem blaſſen eingefallnen Geſichte. Er lebte ſehr ruhig für ſich und war niemals in den Fehden ſeiner Nachbarn verwickelt, auch ſah man ihn nur ſelten außerhalb den Ringmauern ſeines kleinen Schloſſes. Sein Weib liebte die Einſamkeit eben ſo ſehr, und beide ſchienen ſich von Herzen zu lieben, nur klagten ſie gewöhnlich darüber, daß der Himmel ihre Ehe mit keinen Kindern ſegnen wolle. Nur ſelten wurde Eckbert von Gäſten beſucht, und wenn es auch geſchah, ſo wurde ihretwegen faſt nichts in dem gewöhnlichen Gange des Lebens geändert, die Mäßigkeit wohnte dort, und die Sparſamkeit ſelbſt ſchien alles anzuordnen. Eckbert war alsdann heiter und aufgeräumt, nur wenn er allein war, bemerkte man an ihm eine gewiſſe Verſchloſſenheit, eine ſtille zurückhaltende Melancholie. Niemand kam ſo häufig auf die Burg als Philipp Walther, ein Mann, an welchen ſich Eckbert geſchloſſen hatte, weil er an ihm ohngefähr dieſelbe Art zu denken fand, der auch er am meiſten zugethan war.

Tieck.

INDIA FOREST DEPARTMENT, Jan. 1870.

Sie ſchrieben mir vor einigen Monaten und ſprachen mir Ihre Freude über den erſten Theil des Münchhauſen aus, den Sie damals geleſen hatten. Dieſer Brief kam ganz frei aus Ihrer Seele, denn ich hatte es unterlaſſen, Ihnen ein Exemplar meines Buches zu ſenden. Er war mir unverhofft und eine freudige Ueberraſchung. Doppelt aber erfreute er mich. Denn einmal mußte es mir wohl ſehr lieb ſeyn, daß Sie ſich ſo an den Anfängen meines Werkes ergötzt hatten, dann aber zeugte die liebenswürdige Lebhaftigkeit Ihrer Worte von der fortblühenden Jugend, welche wie ein Kranz ſchöner Roſen Ihre ehrwürdigen Schläfen umſchmückt. Ich nahm mir gleich vor, Ihnen zu antworten und zu danken. Nachher aber überlegte ich, daß der beſte Dank die That iſt und ſchwieg daher bis zur Vollendung des ganzen Werkes. Nun iſt es fertig und ich widme Ihnen ſeinen Abentheurer und ſeine guten Menſchen, ſeine Poſſen und ſeinen Ernſt mit dieſem letzten Theile. Darüber reden kann ich nicht; es wirke auf Sie, wie es eben die Kraft und Fähigkeit in ſich beſitzt.

Immermann.

SURVEYING.

Time allowed, 3 hours.

1. What is the length of a "Gunter's chain," and what is the reason that this length has been adopted as a convenient one?
2. Give a short description of a theodolite, and state the chief uses to which it may be applied. Give a description of the various adjustments of the instrument in the order in which they should be made.
3. Explain the principle of the vernier, and describe the manner in which you would construct a vernier for a circle, to read to 30 seconds, when the arc is divided into quarter degrees.
4. What is the meaning of the term "Refraction"? Are its effects constant or variable? In what manner does it affect observations made in surveying, and how may its effects be ordinarily obviated?
5. Describe shortly the process of making a traverse survey of a road with a theodolite. Plot, upon a scale of four chains to an inch, the traverse survey of which the accompanying paper (marked A) is the record of the measurements made on the ground. Construct your own scale.*
6. The accompanying paper (marked B) represents a piece of ground which it is proposed to survey. Describe the manner in which you would do it, first, if you had a chain only, and, second, if you had a theodolite as well. Illustrate your description by drawing in red on the plan the lines which you would chain under the first supposition, and in black those you would chain under the second, marking also in the latter case the angles which you would observe.

* This may be left in pencil if the time at your disposal does not admit of ink being used.

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7. Describe the process of levelling with a spirit level with a view to making a section of ground. Show the form you would adopt for the field book, and fill it in with imaginary readings, supposing the ground first to fall regularly 50 feet in 2,000, and then to rise regularly 40 feet in 1,200.

PLAN DRAWING.

Time allowed, 6 hours.

(3 in the morning : 3 in the afternoon.)

The plan given you (marked C.) is on the scale of $\frac{1}{2500}$: that is, objects are represented in that proportion to their actual size.

Construct such a scale for the measurement of yards on the plan ; and state how many inches on the scale would represent a mile. Leave all the calculations on the paper.

The north and south line is parallel to the shorter sides of the paper, the north being towards the top ; draw this line on the plan, indicating the north in the usual manner. The magnetic north is 21° 30′ west of the true north ; draw the magnetic meridian and the true east and west lines.

The dotted lines ..... on the plan represent horizontal contours at 25 feet vertical intervals. Make a section on the line DE, employing for horizontal distances the same scale as that of the plan, and for vertical heights a scale of 100 feet to an inch.

Commence to copy the plan, including the colouring. Three hours will be allowed in the afternoon for its completion.

BOTANY.

Time allowed, 3 hours.

1. Define the following botanical terms : angiospermous, bract, capitulum, columella, cyme, dictyo-genous, follicle, diadelphous, orthotropous, syncarpous, and corollifloral ; and give one example of each.
2. Describe the ordinary structure of cellular tissue, state in what parts of plants it is usually found, and what the cells contain. Can you name any class of plants which are formed wholly of cellular tissue ?
3. Contrast the stem and the root of a dicotyledonous plant with those of a monocotyledonous plant. Explain the principle of grafting.
4. Distinguish between a bulb and a rhizome. How would you describe botanically (1) the runner of a strawberry plant, (2) an ordinary carrot.
5. Describe the structure of an ordinary dicotyledonous leaf. Give an account of its functions. How do aerial leaves differ from submerged leaves ? When are leaves said to be (1) verticillate, (2) decussate ? Give examples.
6. Of what parts does a fruit essentially consist ? Point out these parts in the case of (1) a filbert, (2) a cucumer, (3) a raspberry, (4) an orange, (5) a horse chesnut, (6) a juniper berry.
7. Give an account of the peculiarities in the development and growth of the misletoe.

8. Give the characters of the order gramineæ, and state how it is distinguished from that of the sedges.
9. To what natural orders would you refer plants having the following characters; and what is the Linnean class and order of each?
   (A.) Dicotyledonous, calyx gamosepalous; corolla gamopetalous, hypogynous; stamens 5 inserted on the coralla; fruit a berry 2-celled.
   (B.) Monocotyledonous, perianth of six segments, one spurred, gynandrous, ovary 1-celled, placentation parietal, seeds ex-albuminous.
10. Describe the general structure of a fungus, *e.g.*, the common mushroom, whence its nutriment is derived, and how it is propagated. Explain how fairy-rings are produced.

CHEMISTRY.

Time allowed, 3 hours.

1. State the composition of atmospheric air. Explain how the proportion of carbonic acid gas it contains may be found. If sulphur be burnt in a closed vessel of dry air what gases will be found in the vessel when the sulphur will burn no longer; and what will be their relative proportions?
2. Describe the preparation of nitric acid, and explain the chemistry of the process. Nitric acid has been detected in rain after a thunderstorm; how is its presence accounted for? How can the like result be produced artificially?
3. What do you mean by neutralizing an acid? What weight of solution of ammonia containing 10 per cent. of ammonia will exactly neutralize 100 grains of sulphuric acid? H : N : O : S = 1 : 14 : 16 : 32.
4. Describe the leading characters of (1) phosphorus, (2) chlorine. Explain how the former is obtained.
5. By what tests may (1) ammonium chloride, (2) sulphuretted hydrogen, (3) magnesium sulphate, be recognized? State in symbols the reactions involved in the tests mentioned.
6. Describe the preparation of caustic potash, and explain the chemistry of the process. By what characters can potash be distinguished from soda? What is its action with (1) chlorine, (2) sulphuretted hydrogen, (3) iron chloride (ferric)?
7. What are the chief causes of hardness in spring water? Would you expect water which had permeated some thickness of vegetable soil before reaching the mineral strata, or that which had no such vegetable soil to penetrate, to give the spring of harder character. Give your reasons. Explain how to determine the quantity of lime in a water.
8. State the laws of chemical combination of gases by volume, and give examples of the principal varieties of proportion in which gases combine. What volume of oxygen is needed for the complete combustion of one cubic foot of marsh gas?
9. Explain how the combining weight of silver is determined.
10. Ten parts of a substance containing no elements but hydrogen, carbon, and oxygen, gave, when burnt, 2 parts of water and 9·77 of CO_2; find a formula for the substance.
11. State the conditions which appear essential to the (vinous) fermentation of sugar; and explain the chemical changes which occur in the sugar during the process.

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12. What is cream of tartar? Whence is it obtained, and how can tartaric acid be obtained from it? Explain the reasons for calling tartaric acid a bibasic acid.
13. In what cases can substances be separated by *dialysis*? Describe the process.

GEOLOGY.

Time allowed, 3 hours.

1. Describe the several forms in which quartz appears as a principal constituent of rocks. By what characters may it be distinguished from felspar?
2. Give the principal divisions of igneous rocks, and one or two examples of each. Define the following rocks, and state the classes of rocks to which they severally belong: dolerite, marl, saccharine limestone, chert, slate, basalt, gravel.
3. Define metamorphic rocks. Account for their more frequent appearance among the lower than among the upper strata. Give any example of which you are aware of a tertiary metamorphic rock.
4. How can you distinguish a *nodule* from a *pebble*? Explain how they are supposed to be formed.
5. What are volcanic ashes? Describe the general features and structure of volcanic cones. How can the relative age of a trap dyke be determined?
6. State the position in the geological scale of the carboniferous formation of England. Describe its general characters, mineral and fossil.
7. What is the direction of the strike of the oolitic strata of England? Explain the cause of it, and also why the strike of the tertiary strata is not parallel to it.
8. Explain how a strata at a distance, *e.g.*, those of the Jura, are inferred to be of the same age as the oolitic strata of this country. Illustrate by actual examples as far as you can.
9. Draw a section showing the succession of strata either in the London basin, *or* in the Isle of Wight above the chalk, *or* of the coast from Whitby to Sunderland.
10. Distinguish between fossil casts and mineralized organic remains, giving examples of common occurrence. In what range of formations are the genera belemnite, lingula, plesiosaur, and elephas respectively found? In which are the following fossils abundant, strophomena depressa, ananchytes ovatus, exogyra virgula, spirifer glaber, trigonia clavellata, cerithium giganteum, ammonites lamberti? Draw a diagram of the last.
11. Explain how ice in the polar seas acquires a load of earthy matter. Show what will be the general character of the deposits thence formed. Give examples of such formations in this country describing their leading features.
12. Mention a well authenticated example of modern elevation of land. What reasons are there for supposing that part of England has been under sea water since the pliocene period?
13. Explain the geological conditions necessary for an artesian well. Can the temperature of the water from such a well be predicted with any probability? Give reasons.

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MECHANICAL AND NATURAL PHILOSOPHY.

Time allowed, 3 hours.

1. Show how to determine the resultant of any number of forces acting at the same point in one plane, assuming the parallelogram of forces. Three men stand at the edge of a circular pit of six feet radius, and each has a rope tied to a weight at the centre of the pit, on which he exerts a force of 1 cwt.; find the greatest weight they can jointly lift when the weight is 12 feet below them; show that they must stand at equal distances from each other, or one will be pulled over.
2. Show that a man cannot raise by a rope passing over a single fixed pulley any weight greater than his own weight if he has to stand on either (1) a smooth plain, or (2) a level floor of which the coefficient of friction is a proper fraction.
3. Determine the relation between the power and weight on a screw supposed smooth.
4. Show the advantage of large wheels over small, (1) as far as the friction of the axles is concerned, (2) in passing over an obstacle in the road.
5. A heavy plate of iron in the form of a right-angled triangle and uniform in thickness lies on level ground; show that as far as lifting one corner goes it is as easy just to raise one corner as another, but if it has to be raised to a vertical position less *work* is expended in raising it by the right angle than by either of the others.
6. A stone dropped from the top of a tower reaches the ground in $3\frac{1}{2}$ seconds: find the height of the tower.
7. A charge of powder will propel a 32-lb. ball with a velocity of 2,000 feet per second; how fast ought the same charge to propel an 80-lb. ball? Compare the horizontal ranges of the two balls supposing both to be fired at an elevation of 45°.
8. Explain the use of a fly wheel to a steam engine. Find the amount of work accumulated in a grindstone of four feet diameter and six inches thick, of which each cubic foot weighs 150 lbs., when it revolves once in a second.
9. A cylinder floats vertically in water with six inches of its length immersed; how far will it sink in spirit of which the specific gravity is 850, that of water being 1,000?
10. Describe the barometer and explain its action. Explain its use for finding the height of mountains, and why it is necessary in this case to note the *temperature* of the air.
11. What is the law of resistance to a body moving through the air? Explain how a ship can be propelled in the direction of its length by a wind which is on the bow.
12. Find the power which must be applied to the handle of a common pump to raise water from a given depth when the dimensions of the piston and length of handle are given.
13. Explain the principle of the condenser of a steam engine. Why is a condensing engine more economical of fuel than a high pressure engine?

7.—STATISTICS.

Table I.—Open Competition of 1870.

TABLE OF MARKS.

Note.—The following extract from the Tenth Report of the Civil Service Commissioners refers to a change in the mode of assigning marks:—"It has already "been mentioned as one of the ruling principles of these examinations that no can- "didate should be allowed any credit at all for taking up a subject in which he is a "mere smatterer. Hitherto we have thought it enough, in conformity with this "principle, to strike out all marks which indicated less than a competent knowledge "of the subject selected; leaving those whose knowledge exceeded, by ever so "little, the minimum of competence, to count all the marks assigned to them. We "are of opinion, however, that superficial study may be more effectually discouraged "by allowing no credit for slight knowledge even to those candidates who succeed "in passing beyond it. We propose, therefore, that from the marks of all can- "didates alike a number answering to this slight knowledge shall be deducted; "but that it shall be possible, nevertheless, for any candidate who may show "remarkable proficiency in any subject to obtain the full number of marks allotted "to that subject. One exception we have thought it right to make to this rule of "deduction, *i.e.*, in the case of Mathematics."

On this occasion, as on the last, a deduction of 125 has been made.

TABLE I.—OPEN COMPETITION of 1870.—TABLE of MARKS.—SELECTED CANDIDATES.

Order of Merit.	No. in Examination.	Name.	Age on March 1st, 1870.	NUMBER OF MARKS OBTAINED.													
				Language and Literature of England.			Language and Literature of Greece.	Language and Literature of Rome.	Language and Literature of France.	Language and Literature of Germany.	Language and Literature of Italy.	Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
				Composition.	History.	Literature, &c.											
				Maximum Number of Marks.													
				500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
1	237	Stack; Edward	20	375	275	200	457	525	180	196	96	688	—	—	—	—	2,992
2	29	Francis; Edward Belcham	19	298	215	100	334	359	—	—	—	705	150	—	—	—	2,161
3	206	Hoey; William	20	204	200	165	346	402	58	85	124	516	—	—	—	—	1,900
4	52	Walker; Thomas Gordon	20	77	235	140	305	297	—	—	—	843	—	—	—	—	1,897
5	236	Addis; David Foulis	20	295	255	100	399	510	—	—	—	—	—	107	194	—	1,860
6	154	Stoker; Thomas	20	195	170	125	291	445	—	—	—	51	548	—	—	—	1,825
7	344	Cruickshank; Alexander Walmesley	18	223	240	120	—	140	86	—	—	976	—	—	—	—	1,785
8	74	Silcock; James Greer	20	54	150	165	379	354	—	—	—	173	486	0	—	—	1,761
9	95	Holderness; Thomas William	20	220	215	265	289	420	—	—	—	330	—	—	—	—	1,739
10	100	Cunningham; Alexander Frederick Douglas	17	189	170	180	334	420	0	—	—	443	—	—	—	—	1,736
11	26	Finch; Robert Hales	19	159	185	170	379	322	74	—	—	434	—	—	—	—	1,723
12	266	Anderson; Alexander	20	75	90	95	228	193	0	—	—	776	31	216	—	—	1,704
13	113	McPherson; James	20	35	70	155	279	221	—	—	—	933	—	—	—	—	1,693
14	174	Bird; Hubert Moore	20	208	235	260	230	263	—	—	—	211	—	207	—	—	1,614
15	165	Sinclair; Donald Brooke	19	100	305	125	352	394	103	—	—	—	—	—	216	—	1,595
16	223	Jopp; Charles Henry	20	242	270	145	314	327	—	—	—	—	140	38	113	—	1,589
17	182	Sewell; Ebenezer James	19	352	120	200	—	297	—	—	—	583	0	—	—	—	1,552
18	110	Turner; George Gladstone	19	235	225	250	404	417	—	—	—	2	—	0	—	—	1,533
19	210	Forbes; George Stuart	20	140	165	105	—	83	—	—	—	543	435	35	—	—	1,506
	338	Stevenson; George	19	186	170	120	296	230	—	163	—	—	143	198	—	—	1,506
21	22	Haggard; Alfred Hinuber	20	270	275	175	—	—	175	95	97	—	279	115	—	—	1,481

Open Competition of 1870.—Table of Marks.—Selected Candidates—*continued.*

Order of Merit.	No. in Examination	Name.	Age on March 1st, 1870.	NUMBER OF MARKS OBTAINED.													
				Language and Literature of England.			Greece.	Rome.	France.	Germany.	Italy.	Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
				Composition.	History.	Literature, &c.											
				Maximum Number of Marks.													
				500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
22	16	Atkinson; George Henry	18	285	180	155	239	249	59	—	—	306	—	—	—	—	1,473
23	209	Fasson; Herbert John Hamilton	18	252	245	85	—	139	118	—	—	379	254	—	—	—	1,472
	89	Nugent; John	20	0	210	150	188	273	0	—	—	651	—	—	—	—	1,472
25	229	*	—	79	70	35	—	—	—	—	—	360	927	0	—	—	1,471
26	137	Larken; Arthur Luke Pennycuick	19	200	180	105	334	431	—	—	—	0	138	78	0	—	1,466
27	178	McCorkell; Gilmour	20	67	110	225	—	124	—	—	—	792	136	—	—	—	1,454
28	76	Marindin; Charles Randal	18	221	130	285	291	309	—	—	—	—	216	—	—	—	1,452
29	186	Finucane; Michael	19	153	—	105	275	353	—	—	—	345	—	215	—	—	1,446
30	326	O'Donnell; Charles James	19	0	125	15	213	207	0	—	—	420	463	—	—	—	1,443
31	139	Collier; Frank Robert Stanley	20	305	160	145	240	288	90	—	—	213	—	—	—	—	1,441
	1	Lawson; Charles Edward	19	50	105	40	319	415	—	—	—	409	103	—	—	—	1,441
33	222	Wight; John Knox	20	8	60	60	210	226	95	—	—	772	—	—	—	—	1,431
34	41	Davidson; James	20	27	205	145	—	183	—	—	—	669	200	—	—	—	1,429
35	53	Ozanne; Edward Charles	19	97	80	175	230	260	94	25	—	452	—	—	—	—	1,413
36	106	Bolton; Charles Walter	19	149	175	85	154	237	185	—	—	427	—	—	—	—	1,412
37	142	Durand; Henry Mortimer	20	262	220	115	—	289	201	—	—	322	—	—	—	—	1,409
38	202	Boroocah; Anundoram	19	39	60	110	—	—	—	—	—	836	—	94	256	—	1,395
39	94	Handley; Francis Frederick	19	241	240	85	140	229	40	—	—	290	—	—	112	—	1,377
40	66	MacCarthy; John	20	145	210	240	277	262	88	76	—	57	—	—	—	—	1,355
41	51	Woodburn; Archibald Francis	19	9	195	155	—	205	—	—	—	733	52	—	—	—	1,349

* This candidate proved to be ineligible on ground of health.

OPEN COMPETITION, 1870.

OPEN COMPETITION OF 1870.—TABLE OF MARKS.—CANDIDATES NOT SELECTED.

Order of Merit.	NUMBER OF MARKS OBTAINED.													
	LANGUAGE AND LITERATURE OF							Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
	England.			Greece.	Rome.	France.	Germany.	Italy.						
	Composition.	History.	Literature, &c.											
	Maximum Number of Marks.													
	500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
42	171	145	140	221	147	—	—	—	425	99	—	—	—	1,348
43	105	115	200	—	136	156	—	—	514	114	—	—	—	1,340
	0	215	190	—	0	—	—	—	725	210	—	—	—	1,340
45	295	95	245	204	217	69	—	30	181	—	0	—	—	1,336
46	191	170	75	—	—	74	—	—	451	372	—	—	—	1,333
47	198	115	0	42	160	—	—	—	524	291	—	—	—	1,330
48	122	82	205	237	313	—	—	—	—	323	47	—	—	1,329
49	357	140	90	287	366	—	—	—	—	—	69	—	—	1,309
50	183	205	170	169	247	—	—	—	143	168	—	—	—	1,285
51	195	40	135	185	241	86	—	—	395	—	—	—	—	1,277
52	228	90	250	229	254	—	—	—	68	149	—	—	—	1,268
53	113	95	80	338	460	0	—	—	164	—	14	—	—	1,264
54	96	100	125	289	211	—	—	—	435	—	—	—	—	1,256
55	72	120	75	243	315	81	—	—	346	—	—	—	—	1,252
56	19	175	185	372	373	—	—	—	124	—	—	—	—	1,248
	0	0	70	—	—	—	—	—	992	186	—	—	—	1,248
	244	220	135	241	165	0	17	—	226	—	—	—	—	1,248
59	31	85	120	325	328	0	—	—	357	—	—	—	—	1,246
60	0	30	160	327	196	—	—	—	521	—	—	—	—	1,234
61	165	180	130	186	305	43	—	—	220	—	—	—	—	1,229
62	0	95	25	393	456	—	—	—	252	—	—	—	—	1,221
63	168	185	125	211	223	—	—	—	297	—	—	—	—	1,209
64	0	150	100	96	97	10	—	—	538	215	—	—	—	1,206
65	141	170	30	—	155	15	—	—	682	10	—	—	—	1,203
	0	35	35	—	—	—	—	—	949	184	—	—	—	1,203
67	68	90	60	—	91	—	—	—	569	318	—	—	—	1,196
68	36	185	155	—	136	—	—	—	476	179	27	—	—	1,194
69	124	125	195	161	130	—	—	—	188	254	—	—	—	1,177
70	0	0	100	344	400	—	—	—	55	269	—	—	—	1,168
71	107	110	135	117	151	99	118	29	298	—	—	—	—	1,164
72	137	65	125	372	450	12	—	—	—	—	—	—	—	1,161
	155	115	195	0	140	70	—	—	486	0	—	—	—	1,161
74	135	160	105	174	308	—	—	—	278	—	—	—	—	1,160
75	169	10	55	279	296	138	—	—	210	—	0	—	—	1,157
76	102	30	130	0	130	—	—	—	515	61	136	—	—	1,154
77	28	205	165	172	266	0	—	—	42	254	—	—	—	1,132
78	103	250	150	211	201	—	—	—	216	—	—	—	—	1,131
79	150	210	155	268	300	—	—	—	41	0	—	—	—	1,124
80	169	45	240	72	169	—	—	—	427	—	—	—	—	1,122
81	282	175	165	250	218	—	—	—	20	0	—	—	—	1,110
82	89	105	100	208	241	—	—	—	18	345	—	—	—	1,106
83	172	80	95	186	129	—	—	—	428	—	—	—	—	1,090
84	144	120	40	144	101	—	—	—	539	—	—	—	—	1,088

Open Competition of 1870.—Table of Marks.—Candidates not selected—*continued.*

Order of Merit.	NUMBER OF MARKS OBTAINED.													
	Language and Literature of							Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
	England.			Greece.	Rome.	France.	Germany.	Italy.						
	Composition.	History.	Literature, &c.											
	Maximum Number of Marks.													
	500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
85	111	55	115	12	72	—	—	—	558	158	—	—	—	1,081
86	136	0	55	187	310	—	—	—	392	—	—	—	—	1,080
87	220	175	95	—	53	0	—	—	535	1	—	—	—	1,079
88	103	0	85	267	286	0	—	—	312	—	0	—	—	1,053
89	220	45	80	0	147	—	143	—	412	—	—	—	—	1,047
90	92	45	85	248	327	53	—	—	75	—	118	—	—	1,043
91	198	85	115	18	117	—	—	—	502	—	—	—	—	1,035
92	0	0	65	—	—	—	133	—	768	59	—	—	—	1,025
93	313	220	130	—	—	12	—	7	196	143	0	—	—	1,021
94	121	125	60	—	150	—	—	—	281	190	86	—	—	1,013
95	27	205	255	158	199	0	—	—	167	—	—	—	—	1,011
96	137	70	80	202	270	67	—	—	—	168	16	—	—	1,010
97	260	30	85	299	264	—	—	—	71	—	—	—	—	1,009
98	234	70	120	200	209	—	—	—	55	117	—	—	—	1,005
99	65	275	45	—	—	—	—	—	535	74	—	—	—	994
100	212	120	50	—	261	57	—	36	—	254	—	—	—	990
101	24	65	150	273	338	—	—	—	134	—	—	—	—	984
102	271	70	70	220	321	0	—	—	31	—	—	—	—	983
103	182	220	20	—	—	0	—	—	501	58	—	—	—	981
	266	0	40	331	320	—	—	—	—	—	24	—	—	981
	30	160	45	—	216	18	—	—	489	23	0	—	—	981
106	16	190	130	259	380	—	—	—	—	0	—	0	—	975
107	138	0	5	253	301	0	—	—	153	123	—	—	—	973
108	149	60	120	203	160	0	—	—	278	—	—	—	—	970
	0	120	95	265	230	—	—	—	260	—	—	—	—	970
110	0	105	80	—	—	—	—	—	431	52	77	216	—	961
111	7	45	120	172	200	—	—	—	241	7	168	—	—	960
112	119	40	45	293	303	0	—	—	—	158	—	—	—	958
113	78	135	85	271	388	—	—	—	—	—	—	—	—	957
114	213	55	125	296	267	—	—	—	0	—	0	—	—	956
115	71	130	125	187	341	21	—	—	—	76	—	—	—	951
116	0	95	85	323	301	—	—	—	97	—	48	—	—	949
117	90	20	200	—	321	69	—	—	148	—	98	—	—	946
118	213	225	15	—	—	57	52	—	314	56	—	—	—	932
119	20	135	150	—	—	—	—	—	412	203	—	—	—	920
	93	225	110	80	115	—	—	—	82	215	—	—	—	920
121	113	90	185	166	139	13	—	—	211	—	0	—	—	917
122	0	100	95	204	123	—	—	—	69	309	—	—	—	900
123	117	30	75	138	180	0	22	—	337	—	—	—	—	899
124	54	55	105	252	287	24	—	—	116	—	—	—	—	893
125	65	185	100	—	0	—	—	—	503	—	37	—	—	890
126	107	95	135	232	254	—	—	—	—	—	0	—	—	883
127	192	130	60	189	217	26	—	—	65	—	—	—	—	879
128	160	60	115	100	49	0	—	—	288	—	89	—	—	861
129	0	100	135	—	1	—	—	—	382	236	—	—	—	854
130	72	165	120	—	44	—	—	—	334	116	—	—	—	851

OPEN COMPETITION, 1870.

Open Competition of 1870.—Table of Marks.—Candidates not selected—*continued.*

Order of Merit.	NUMBER OF MARKS OBTAINED.													
	LANGUAGE AND LITERATURE OF								Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
	England.			Greece.	Rome.	France.	Germany.	Italy.						
	Composition.	History.	Literature, &c.											
	Maximum Number of Marks.													
	500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
131	44	230	100	262	186	—	13	—	10	—	—	—	—	845
132	125	0	0	179	256	—	—	—	218	60	—	—	—	838
133	28	50	150	104	106	0	13	—	192	194	—	—	—	837
	222	0	25	346	244	—	—	—	—	—	0	—	—	837
135	93	115	60	179	226	55	—	—	103	—	1	—	—	832
	52	45	40	296	232	27	—	—	140	—	—	—	—	832
137	25	0	0	386	183	—	—	—	237	—	—	—	—	831
138	0	95	60	—	—	—	—	—	550	119	—	—	—	824
139	198	0	60	132	78	0	—	—	342	—	—	0	—	810
140	0	90	65	167	273	—	—	—	66	25	122	—	—	808
141	119	125	125	85	200	28	—	0	10	109	—	—	—	801
142	115	16	90	—	—	38	—	—	287	259	—	—	—	799
143	159	85	90	—	145	—	—	—	189	129	—	—	—	797
	116	205	75	—	—	95	67	0	22	194	23	—	—	797
	131	0	180	—	158	—	—	—	—	271	57	—	—	797
146	71	0	35	—	—	0	—	—	434	254	—	—	—	794
147	82	250	115	—	41	0	—	—	305	0	—	—	—	793
148	167	0	0	220	260	62	57	22	—	—	—	—	—	788
149	163	105	0	150	152	—	—	—	215	—	—	—	—	785
150	64	0	135	229	109	—	—	—	164	83	—	—	—	784
151	0	130	80	200	245	—	—	—	122	—	—	—	—	777
152	109	100	125	27	118	66	—	—	227	—	—	—	—	772
153	97	105	20	—	143	114	—	—	291	—	0	—	—	770
154	205	45	55	129	236	22	14	—	59	—	—	—	—	765
	59	35	85	270	293	0	—	—	23	0	—	0	—	765
156	0	0	115	—	190	—	—	—	—	292	167	—	—	764
157	0	20	50	—	—	—	—	—	662	27	—	—	—	759
158	51	120	50	—	—	0	—	—	344	191	—	—	—	756
	125	0	170	101	160	—	—	—	200	—	—	—	—	756
160	196	40	195	—	64	—	—	—	111	148	—	—	—	754
161	29	0	65	158	280	—	—	—	73	148	—	—	—	753
162	9	6	75	336	265	—	—	—	59	0	—	—	—	744
	0	160	80	160	110	11	—	—	51	172	0	—	—	744
164	0	155	45	234	302	—	—	—	—	—	—	—	—	736
165	89	25	85	237	296	—	—	—	—	—	—	—	—	732
166	150	50	70	136	302	0	22	—	—	—	—	—	—	730
167	48	30	60	—	140	17	—	—	308	126	—	0	—	729
168	55	0	0	235	299	20	87	—	32	—	—	—	—	728
169	131	0	75	207	248	0	—	—	62	—	—	—	—	723
170	1	70	—	—	—	—	—	—	574	72	—	—	—	717
171	162	45	70	—	0	—	150	—	287	—	—	—	—	714
172	105	0	105	96	30	—	—	—	376	—	—	—	—	712
	0	120	45	—	38	97	—	140	137	135	—	—	—	712
174	169	100	85	155	140	0	—	—	61	—	—	—	—	710
175	18	90	125	17	90	—	—	—	361	—	0	—	—	701
176	87	80	135	—	—	—	—	—	198	164	35	—	—	699

Open Competition of 1870.—Table of Marks.—Candidates not selected—*continued.*

Order of Merit.	NUMBER OF MARKS OBTAINED.													
	LANGUAGE AND LITERATURE OF													
	England.			Greece.	Rome.	France.	Germany.	Italy.	Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
	Composition.	History.	Literature, &c.											
	Maximum Number of Marks.													
	500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
177	13	65	75	152	75	—	—	—	—	308	—	—	—	688
	0	115	85	134	82	0	—	—	272	—	—	—	—	688
179	120	55	20	135	130	—	—	—	105	—	—	121	—	686
180	0	0	0	138	181	0	—	—	364	0	—	—	—	683
181	144	55	60	174	196	0	—	—	—	45	—	—	—	674
182	0	35	105	232	214	0	—	—	87	—	—	—	—	673
183	148	25	105	—	230	—	—	—	48	—	108	—	—	664
	116	65	110	106	152	0	—	—	115	—	—	0	—	664
185	0	0	0	254	234	—	—	—	—	175	—	—	—	663
186	99	0	70	120	278	—	—	—	93	—	—	—	—	660
187	26	0	0	238	265	0	—	—	127	—	—	—	—	656
188	86	20	125	—	—	—	—	—	176	89	29	128	—	653
189	58	0	40	85	212	153	—	—	97	—	—	—	—	645
190	0	95	85	174	85	—	—	—	195	—	—	—	—	634
191	0	0	95	139	213	—	—	52	128	—	0	—	—	627
192	0	0	0	226	280	—	—	—	20	100	—	—	—	626
193	4	5	125	216	272	—	—	—	—	—	0	—	—	622
194	125	0	65	174	245	0	—	—	—	—	—	—	—	609
	33	0	80	209	171	—	—	—	116	—	—	—	—	609
196	107	47	0	—	134	52	—	—	16	—	—	247	—	603
197	0	0	15	134	196	88	159	—	—	—	0	—	—	592
198	158	50	240	—	0	42	101	—	—	0	0	—	—	591
199	185	0	130	64	202	0	—	—	—	—	0	—	—	581
200	0	0	35	253	258	—	—	—	32	—	—	—	—	578
201	0	120	110	—	—	0	—	—	304	0	43	—	—	577
202	103	110	100	—	0	0	—	—	74	175	—	—	—	562
203	26	100	30	125	219	26	—	—	27	—	0	—	—	553
	151	0	35	143	191	0	—	—	33	—	0	—	—	553
	120	40	30	76	129	0	27	—	131	—	—	—	—	553
206	122	40	80	—	—	80	—	—	226	0	—	—	—	548
	0	50	85	153	56	—	—	—	177	27	—	—	—	548
208	1	40	25	178	198	0	—	—	—	58	—	39	—	539
209	72	0	90	—	89	0	—	—	281	0	4	—	—	536
210	73	25	115	162	60	—	—	—	94	—	—	—	—	529
211	98	75	25	149	161	0	—	—	—	20	—	—	—	528
212	122	135	80	0	41	—	—	—	—	149	—	—	—	527
213	104	20	90	221	91	0	—	—	—	—	0	—	—	526
214	14	0	85	—	0	—	—	—	380	42	—	—	—	521
215	160	0	40	—	—	83	97	—	136	—	0	—	—	516
216	106	210	40	—	78	18	—	—	58	—	0	—	—	510
	0	0	60	0	79	0	—	—	371	—	—	—	—	510
218	0	115	10	—	—	—	—	—	380	—	—	—	—	505
219	67	0	25	136	252	19	—	—	—	—	0	—	—	499
220	0	10	0	157	315	15	—	0	—	—	—	—	—	497
221	227	30	85	38	115	0	—	—	—	—	—	—	—	495
	0	0	85	233	153	0	—	—	24	—	—	—	—	495

OPEN COMPETITION, 1870.

Open Competition of 1870.—Table of Marks.—Candidates not selected—*continued.*

Order of Merit.	NUMBER OF MARKS OBTAINED.													
	LANGUAGE AND LITERATURE OF								Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
	England.			Greece.	Rome.	France.	Germany.	Italy.						
	Composition.	History.	Literature, &c.											
	Maximum Number of Marks.													
	500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
223	162	43	115	—	57	0	0	—	114	0	—	—	—	491
224	154	0	20	—	—	—	—	—	290	—	25	—	—	489
225	51	0	0	—	123	23	153	—	136	—	—	—	—	486
226	97	20	110	—	69	31	—	—	—	150	—	—	—	477
227	51	0	0	211	194	—	—	—	15	—	—	—	—	471
228	0	60	5	195	208	—	—	—	—	—	—	0	—	468
229	283	45	35	—	—	—	—	—	—	0	100	—	—	463
230	0	65	95	—	—	—	—	—	0	35	—	—	255	450
231	181	0	0	118	138	—	—	—	5	—	—	—	—	442
232	140	0	30	136	127	—	—	—	—	—	—	—	—	433
233	0	0	0	175	252	0	—	—	—	—	—	—	—	427
234	0	0	0	—	—	0	—	—	421	0	—	—	—	421
235 {	87	0	70	55	190	0	0	—	14	—	—	—	—	416
	7	0	125	—	182	49	—	—	—	53	0	—	—	416
237	168	0	75	—	27	0	—	—	47	95	0	—	—	412
238	41	90	20	—	31	0	—	—	223	—	—	—	—	405
239	0	72	65	110	95	—	—	—	61	—	—	0	—	403
240	106	0	0	—	48	—	—	—	162	86	—	—	—	402
241	0	0	20	58	240	44	14	19	—	0	—	—	—	395
242	93	55	20	—	95	—	—	—	131	—	—	—	—	394
243	0	70	5	—	—	—	—	—	311	0	—	—	—	386
244	87	0	0	149	108	0	—	—	28	12	—	—	—	384
245	132	40	50	0	26	2	—	—	127	—	0	—	—	377
246	0	10	0	—	132	64	38	—	127	0	—	—	—	371
247	177	95	25	—	61	0	—	—	—	—	12	—	—	370
248	0	0	50	147	169	—	—	—	—	—	0	—	—	366
249	42	70	75	—	1	—	—	—	177	0	—	—	—	365
250	0	0	—	79	100	—	—	—	170	—	0	—	—	349
251	0	0	0	117	224	0	—	—	—	—	—	—	—	341
252	0	55	55	75	107	—	—	—	—	45	—	—	—	337
253 {	21	100	55	—	—	—	—	—	157	0	—	—	—	333
	0	0	75	0	167	—	91	—	—	—	—	—	—	333
255	0	110	40	111	65	—	—	—	0	0	—	—	—	326
256	0	180	145	—	0	—	—	—	—	—	—	—	—	325
257	0	0	15	0	4	0	—	—	302	0	0	—	—	321
258	3	0	0	103	155	0	—	—	59	—	—	—	—	320
259	36	135	125	—	23	—	—	0	—	—	—	—	—	319
260	41	25	185	—	41	—	—	0	—	22	0	—	—	314
261	3	0	70	0	14	0	—	—	225	—	—	—	—	312
262	0	0	90	0	59	0	—	—	150	0	—	—	—	299
263	0	125	25	—	0	—	—	—	136	—	—	—	—	286
264	0	0	10	105	167	—	—	—	—	—	0	—	—	282
265	132	0	0	32	81	0	—	—	35	—	—	—	—	280
266	0	0	0	117	153	—	—	—	5	—	0	—	—	275
267	103	0	50	—	48	—	—	—	68	—	—	—	—	269
268	0	20	90	—	—	—	—	—	155	0	—	—	—	265

Open Competition of 1870.—Table of Marks.—Candidates not selected—*continued.*

Order of Merit.	NUMBER OF MARKS OBTAINED.													
	Language and Literature of England.			Greece.	Rome.	France.	Germany.	Italy	Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
	Composition.	History.	Literature, &c.											
	Maximum Number of Marks.													
	500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
269	0	35	5	—	—	—	—	—	202	22	—	—	—	264
270	0	40	135	—	1	—	—	—	—	85	0	—	—	261
271	0	0	5	98	153	—	—	—	—	—	—	—	—	256
	169	0	0	—	0	0	—	—	87	—	—	—	—	256
273	111	0	0	45	96	—	—	—	—	—	—	—	—	252
	0	0	0	172	80	0	—	—	—	0	0	0	—	252
275	0	0	30	117	104	0	—	—	0	0	—	—	—	251
276	0	0	60	0	36	0	—	—	146	—	—	—	—	242
277	0	0	0	—	63	—	—	—	177	—	—	—	—	240
278	0	0	0	59	117	0	—	—	54	—	—	—	—	230
	15	0	95	—	4	0	87	—	2	27	—	—	—	230
280	0	0	0	80	114	—	—	—	31	0	—	—	—	225
281	0	0	0	—	—	—	—	—	219	—	—	—	—	219
282	0	0	—	—	—	0	—	—	214	0	—	—	—	214
283	0	0	0	10	17	—	—	—	7	178	—	—	—	212
	0	20	0	37	142	0	—	—	13	—	—	—	—	212
	0	0	55	—	—	—	—	—	108	49	—	—	—	212
	11	0	15	90	96	—	—	—	—	0	—	—	—	212
287	0	0	55	—	6	124	—	—	12	6	—	—	—	203
288	11	60	25	47	56	0	—	—	—	—	—	—	—	199
289	0	20	0	87	88	0	0	—	—	—	—	—	—	195
290	46	0	0	0	0	—	—	—	145	0	—	—	—	191
291	16	0	0	—	0	46	115	—	—	—	—	—	—	177
292	0	0	65	55	56	0	—	—	—	—	—	—	—	176
293	0	0	35	—	95	—	—	—	—	44	0	—	—	174
294	36	20	55	—	0	—	—	—	48	0	—	—	—	159
295	0	0	0	106	51	—	—	—	—	—	—	—	—	157
296	0	130	0	—	—	0	—	—	23	—	—	—	—	153
297	20	15	70	—	36	0	—	—	—	0	0	—	—	141
298	0	0	45	0	0	—	—	—	84	—	—	—	—	129
	0	0	0	—	0	33	—	—	81	15	—	—	—	129
300	0	0	115	—	10	—	—	—	0	—	—	—	—	125
	0	125	0	0	0	—	—	—	—	—	—	—	—	125
302	0	0	0	—	0	—	—	—	123	—	—	—	—	123
303	0	0	65	15	42	0	—	—	0	—	—	—	—	122
	0	0	30	47	28	—	—	—	17	—	0	—	—	122
305	0	0	45	0	0	—	—	—	75	0	—	—	—	120
306	0	0	40	—	—	—	—	—	68	—	—	0	—	108
307	0	0	0	33	69	0	—	—	—	—	—	0	—	102
308	25	25	15	0	32	—	—	—	0	—	—	—	—	97
309	0	0	0	—	17	0	—	—	75	0	—	—	—	92
310	0	0	0	—	0	—	—	—	89	—	—	—	—	89
311	0	0	0	0	25	—	—	—	61	—	—	—	—	86
312	0	20	0	—	0	—	—	—	60	0	—	—	—	80
313	0	0	0	—	0	—	—	—	65	0	—	—	—	65
314	0	0	0	—	0	0	61	—	—	—	—	—	—	61
315	17	0	0	—	—	0	—	—	40	—	—	—	—	57
316	0	0	10	0	27	—	—	—	13	—	—	—	—	50

OPEN COMPETITIO 1870.

Open Competition of 1870.—Table of Marks.—Candidates not selected—*continued.*

Order of Merit.	NUMBER OF MARKS OBTAINED.													
	LANGUAGE AND LITERATURE OF													
	England.			Greece.	Rome.	France.	Germany.	Italy.	Mathematics.	Natural Science.	Moral Science.	Sanskrit.	Arabic.	Total.
	Composition.	History.	Literature, &c.											
	Maximum Number of Marks.													
	500	500	500	750	750	375	375	375	1,250	1,000	500	500	500	7,875
317	0	0	15	0	0	0	—	—	33	—	—	—	—	48
318	36	0	0	—	0	0	—	—	11	—	—	—	—	47
319	0	0	0	19	8	—	—	—	19	—	—	—	—	46
320	0	0	0	0	33	—	—	—	10	—	—	—	—	43
321	0	0	0	—	—	0	—	—	42	0	—	—	—	42
322	0	0	—	0	26	—	—	—	—	—	—	—	—	26
323	0	0	0	—	—	0	0	—	10	—	—	—	—	10
	0	0	0	0	10	—	—	—	0	—	—	—	—	10
325	0	0	0	—	0	—	—	—	9	—	0	—	—	9
326	6	0	0	—	0	—	—	—	—	—	—	—	—	6
327	0	0	0	—	0	—	—	—	—	—	—	—	—	0
	0	0	0	—	0	0	—	—	—	0	—	—	—	0
	0	0	0	—	0	—	—	—	—	—	—	—	—	0
	0	0	0	0	0	—	—	—	—	—	—	—	—	0
	0	0	0	—	0	0	—	—	—	0	0	—	—	0
	0	0	—	—	0	—	—	—	—	—	—	—	—	0

TABLE II.—RANK, PROFESSION, or OCCUPATION of the FATHERS of the CANDIDATES EXAMINED in the OPEN COMPETITION of 1870.

Profession, &c.	Number of Candidates examined.	Successful Candidates.
Army, Officer of	44	6
Navy, Officer of	1	–
Indian Navy, Officer of	1	–
Merchant Service, Officer of	2	–
Civil Service of India	39	1
" (Sudder Ameen)	2	1
Home Civil Service	7	2
Colonial Civil Service	3	1
Consular Service	1	–
CLERGY, &c. :—Established Church	50	4
Church of Scotland	3	1
Dissenting Minister	8	3
Missionary	4	1
LAW :—Judge	2	–
Stipendiary Magistrate	1	–
Barrister, Advocate	7	–
Solicitor	6	1
Sheriff and Commissary Clerk	1	–
Coroner	1	–

TABLE II.—*continued.*

Profession, &c.	Number of Candidates examined.	Successful Candidates.
Physician	16	3
Surgeon	21	4
Artist (1–0); Architect (2–0); Civil Engineer (7–0); Professor at University (4–0); Director of Public Instruction in India (1–0); Professor of Music (1–0); Schoolmaster (7–0); Scripture Reader (1–0).	24	–
Baronet (2–0); Landed Proprietor, Gentleman, J.P., D.L., &c. (15–4); No Profession (5–0).	22	4
Zemindar (2–0); Talookdar (1–0); Planter (4–0)	7	–
Merchant (19–2); Mahogany Broker (1–0); Colliery Proprietor (1–0); Banker (1–0); Queen's Printer (1–0); Ship-owner (3–1).	26	3
Chemist (2–1); Dyer (1–0); Funeral Furnisher (1–0); Tallow Chandler (1–0); Bookseller (3–0); Jeweller (1–0); Clothier (1–0); Pyrotechnist (1–0); Farmer (6–2); Miller (1–0).	18	3
Bank Manager (1–1); Manager of Estate (1–1); Marine Superintendent (1–0); Secretary to Chamber of Commerce (1–0); Insurance Agent (1–1); Bank Agent (1–0); Estate Agent (1–0); Merchant's Clerk (1–0).	8	3
Sailor (1–0); Pilot (1–0); Working Engineer (1–0); Gardener (1–0).	4	–
Not stated or doubtful	3	–
Total	332	41

TABLE III.—OCCUPATIONS, since leaving SCHOOL or COLLEGE, of the CANDIDATES EXAMINED at the OPEN COMPETITION of 1870.

Occupation, &c.	Number of Candidates examined.	Successful Candidates.
Clerk in Civil Service	2	–
Temporary Clerk in Civil Service	1	–
Mercantile Clerk	5	–
Clerk in Assurance Office	1	–
Solicitor's Clerk	2	–
Civil Engineer (Assistant)	1	–
Assistant Master in School	4	–
Private Tutor	3	–
Pupil Teacher	1	–
No Occupation	312	41
Total	332	41

OPEN COMPETITION, 1870.

TABLE IV.—SCHOOLS at which were EDUCATED the CANDIDATES EXAMINED at the OPEN COMPETITION of 1870.

SCHOOLS.	Number of Candidates examined.	Successful Candidates.
ABERDEEN: Grammar School	4	1
Gymnasium	2	1
New Grammar School and Robert Gordon's Hospital.	1	1
ABINGDON: Radley College	1	–
ARMAGH: Royal School	1	1
ATHERSTONE: Grammar School	1	–
AYR: Academy	1	1
BATH: Sidney College	2	–
Somersetshire College (previously at Rossall)	1	–
University School	1	–
BATLEY: Grammar School	1	–
BECCLES: Grammar School	1	–
BEDFORD: Grammar School	2	–
BELFAST: Royal Academic Institute (1 afterwards at the Seminary).	3	1
Seminary (1 previously at the Royal Academic Institute).		
BIRKENHEAD: Proprietary School (1 afterwards at Shrewsbury).	1	–
BIRMINGHAM: King Edward VI.'s School (afterwards at Rugby).	1	–
Edgbaston Oratory School	1	–
BLANDFORD: Milton Abbas Grammar School (afterwards at Guildford Grammar School).	1	–
BRADFIELD: St. Andrew's College	1	–
BRENTWOOD: Grammar School (1 afterwards at Uppingham).	2	–
BRIGHTON: College	4	–
BRISTOL: Clifton College	2	–
CANTERBURY: King's School	1	–
Clergy Orphan School (afterwards at Forest School, Walthamstow).	1	–
CHELTENHAM: College (1 previously abroad, 1 previously at Kensington Grammar School).	23	–
CREDITON: Grammar School	1	–
CRIEFF: Morrison's Academy	1	1
CUPAR: Madras Academy	1	–
DEYTHEUR (Montgomeryshire): Grammar School	1	–
DUBLIN: College of St. Francis Xavier	1	1
Academic Institute	1	–
Santry School (previously at Dundalk Educational Institute).	1	–
DUNDALK: Educational Institute (afterwards at Santry School, Dublin).	1	–
DUNGANNON: Royal School (1 afterwards at a Private School).	4	–
EDINBURGH: Academy (1 afterwards at Trinity College, Glenalmond).	4	–
High School	5	–
Dreghorn College	1	–
Mercheston Castle School	1	1
ELGIN: Academy	1	–
ENNIS: College (1 previously at St. John's College, Newport, Co. Tipperary).	2	–
ENNIS: Grammar School	1	–
ENNISKILLEN: Royal School	3	–
ETON	8	–

TABLE IV.—*continued.*

OPEN COMPETITION, 1870.

SCHOOLS.	Number of Candidates examined.	Successful Candidates.
EXETER: Grammar School	1	–
FELSTED: Grammar School	2	–
GALWAY: Erasmus Smith's School	1	–
St. Ignatius' College	1	1
GLASGOW: High School	1	1
GLENALMOND: Trinity College (1 previously at Edinburgh Academy).	5	1
GUERNSEY: Elizabeth College	1	1
GUILDFORD: Grammar School (previously at Milton Abbas Grammar School, Blandford).	1	–
HAMILTON, N.B.: Grammar School	1	–
HARROW	4	–
HODDESDON: Grammar School	1	–
HURSTPIERPOINT: St. John's College (afterwards at the City of London School).	1	–
ISLE OF MAN: King William's College	1	–
JERSEY: Victoria College	3	–
LANCING: St. Nicholas College	1	–
LEEDS: Grammar School	1	–
LIMERICK: Academy	1	1
St. Munchin's College	1	–
LLANDOVERY: College	1	–
LONDON: Blackheath Proprietary School	7	2
Charterhouse	1	–
Christ's Hospital (afterwards at Shrewsbury)	1	–
City of London (1 previously at St John's College, Hurstpierpoint).	4	–
Clapham Grammar School	1	–
Finchley, Christ's College	4	1
Highgate, Sir R. Cholmeley's School	4	–
International College	1	–
Islington, Proprietary School	1	–
Kensington Grammar School (1 afterwards at Cheltenham College).	3	1
King's College School	3	–
Marylebone Grammar School	1	–
Merchant Taylors' School	1	–
New Cross, Royal Naval School	1	–
North London Collegiate School	1	–
St. Peter's Collegiate School, Eaton Square	1	–
University College School	4	1
Walthamstow, Forest School (previously at Clergy Orphan School, Canterbury).	1	–
Westbourne Collegiate School	1	–
Westminster	3	–
LONDONDERRY: Foyle College	1	1
LOUTH: Grammar School	1	–
MARLBOROUGH: College	13	1
MILFORD HAVEN: Grammar School	1	–
NEWPORT (Co. Tipperary): St. John's College (afterwards at Ennis College).	1	–
PERTH: Academy	1	–
PLYMOUTH: Portland Grammar School (1 previously at Snowdon College, Ootacamund).	3	–
PORTARLINGTON: School	1	1
REPTON	7	1
ROSSALL: (1 afterwards at Somersetshire College, Bath)	4	1
RUABON (Derbyshire): Grammar School	1	–
RUGBY: (1 previously at King Edward VI's School Birmingham).	12	–

OPEN COMPETITION, 1870.

TABLE IV.—*continued.*

SCHOOLS.	Number of Candidates examined.	Successful Candidates.
ST. ANDREWS: Madras College (1 previously at a Private School).	4	–
SHERBORNE: King's School	2	–
SHREWSBURY: (1 previously at Christ's Hospital, 1 previously at Birkenhead Proprietary School).	6	1
SLOUGH: British Orphan Asylum	1	–
SOUTHSEA: St. Mary's Hall	1	–
SOUTHWELL: Grammar School (afterwards abroad)	1	–
STIRLING: High School	1	–
STONYHURST: College (1 previously at St. Xavier's College, Calcutta).	5	1
TAUNTON: Wesleyan College (previously and afterwards Private Schools).	1	–
TAVISTOCK: Grammar School	1	–
THORP ARCH: Grammar School (afterwards at a Private School).	1	1
TIPPERARY: Erasmus Smith's School	1	–
TIVERTON: Blundell's School	2	–
TONBRIDGE: Grammar School	4	–
UPPINGHAM: (1 previously at Brentwood Grammar School)	4	–
WARE: St. Edmund's (Roman Catholic Seminary)	1	–
WELLINGTON: College (1 afterwards abroad)	4	–
WINCHESTER	5	1
WINDERMERE: College	2	–
WORCESTER: Cathedral School	1	–
YARMOUTH: Grammar School	2	1
YORK: St. Peter's School	1	–
INDIA: Calcutta, St. Xavier's College (afterwards at Stonyhurst College).	1	–
Dacca, Pogose School	1	–
Gowhatty, Government School	1	1
Kishnagur, Collegiate School	1	–
Lucknow, Canning College	1	–
Ootacamund Grammar School	1	–
„ Snowdon College (afterwards at Portland Grammar School, Plymouth).	1	–
Poona, Seminary and High School	1	–
Private (apparently)	1	–
COLONIES: Demerara, Queen's College	1	–
Mauritius, Royal College	2	1
Trinidad, Queen's Collegiate School	1	1
WESLEYAN CONNEXIONAL SCHOOL	1	1
NATIONAL SCHOOLS, England and Ireland, and SCOTCH PAROCHIAL SCHOOLS.	7	–
PRIVATE SCHOOLS (1 afterwards abroad)	51*	6
FOREIGN SCHOOLS	2	–
PRIVATE TUITION AND AT HOME	2	1
NOT STATED OR INSUFFICIENTLY DESCRIBED	2	1

* This number merely includes candidates who have been to private schools only, or have received by much the principal part of their education at private schools.

TABLE IV.—SUPPLEMENT.

*In addition to the above, the following Colleges have been attended by the number of Candidates stated.**

COLLEGES.	Number of Candidates examined.	Successful Candidates.
Dublin, Royal College of Science	1	–
King's College, London	21	3
Oscott, St. Mary's College	1	–
Regent's Park College	1	–
Royal School of Mines	3	–
Sheffield, Wesley College	1	–
University College, London	14	1

* Some of these have matriculated or taken a Degree in the University of London, and these are mentioned again in the next Table.

TABLE V.—UNIVERSITIES to which belonged the CANDIDATES EXAMINED at the OPEN COMPETITION of 1870.

UNIVERSITIES.	Number of Candidates examined.	Successful Candidates.
OXFORD:		
Balliol	1	–
Brasenose	2	–
Christ Church	3	–
Exeter	2	–
Magdalen	1	–
New	4	1
Oriel	1	–
Queen's	2	–
Trinity	1	–
University	1	1
CAMBRIDGE:		
Caius	1	–
Clare	2	1
Corpus	1	–
Jesus	1	–
John's	1	–
King's	2	–
Magdalene	1	–
Pembroke	1	–
Sidney Sussex	1	1
Trinity	2	–
Trinity Hall	4	–
DUBLIN: (Trinity College)	22	3
LONDON UNIVERSITY: (1 afterwards at Queen's College, Belfast, 1 also at Edinburgh). These candidates were educated at the following places:— King's College (5–2); University College (3–1); Regent's Park College (1–0); St. Mary's College, Oscott (1–0);† at No College (16–1).	26	4

† Candidates educated at these places but not matriculated in the University of London, are given in the Supplement to the previous Table.

OPEN COMPETITION, 1870.

TABLE V.—*continued.*

UNIVERSITIES.	Number of Candidates examined.	Successful Candidates.
EDINBURGH: (1 previously at St. Andrew's, 1 previously at Aberdeen and St. Andrew's, 1 also at London, 2 previously at Glasgow, 1 afterwards for a short time at Heidelberg).	19	3
ABERDEEN: (1 afterwards at St. Andrew's and Edinburgh, 1 afterwards at Glasgow).	11	5
GLASGOW: (1 previously at Aberdeen, 2 afterwards at Edinburgh).	5	3
ST. ANDREW'S: (1 afterwards at Edinburgh, 1 previously at Aberdeen and afterwards at Edinburgh).	5	–
QUEEN'S UNIVERSITY IN IRELAND:		
Belfast (1 previously at the London University)	5	2
Cork	3	1
Galway	4	1
CALCUTTA	4	1
BOMBAY	1	–
HEIDELBERG (previously at Edinburgh)	1	–

SUMMARY OF THE PRECEDING.

UNIVERSITIES.	Number of Candidates examined.	Successful Candidates.
Oxford	18	2
Cambridge	17	2
Dublin (Trinity College)	22	3
London University	24	4
Edinburgh	16	2
Other Scotch Universities	18	6
Queen's University, Ireland	12	4
Indian Universities	5	1
Of no University	200	17
Total	332	41

Table VI.

Table of Marks.—Final Examination of the Candidates Selected in 1868.

Order of Merit.		Names of Candidates.	Presidency, &c.	Number of Marks obtained by each Candidate in														
In this Examination.	In the Open Competition.			Law.	History and Geography of India.	Political Economy.	Hindi.	Hindustani.	Bengali.	Tamil.	Telugu.	Gujarati.	Marathi.	Sanskrit.	Arabic.	Persian.	Braj Bhakha.	Total.
				Maximum.														
				1,250	350	350	400	400	400	400	400	400	400	500	400	400	400	—
1	22	James; Stephen Harvey -	North West Provinces, Punjaub, and Oude.	838	320	286	337	340	—	—	—	—	—	354	—	322	293	3,090
2	11	Channing; Francis Chorley -	Do. - - -	964	270	281	337	317	—	—	—	—	—	466	—	—	256	2,891
3	7	Deas; Joseph - - -	Do. - - -	754	236	229	317	313	—	—	—	—	—	454	—	246	257	2,786
4	10	Burgess; George Douglas -	Bengal (Lower Provinces).	765	278	264	244	259	356	—	—	—	—	394	—	—	199	2,759
5	19	Dames; Mansel Longworth -	North West Provinces, Punjaub, and Oude.	694	222	234	326	310	—	—	—	—	—	339	—	269	254	2,648
6	13	Fisher; Frederic Henry -	Do. - - -	966	255	247	291	286	—	—	—	—	—	—	—	293	274	2,599
7	26	Bourdillon; James - -	Bengal (Lower Provinces).	722	230	195	250	294	330	—	—	—	—	—	—	—	173	2,194
8	21	Rivaz; George Wilmot -	North West Provinces, Punjaub, and Oude.	823	234	272	296	299	—	—	—	—	—	—	—	—	259	2,136
9	25	Monteath; James - -	Bombay - - -	734	198	307	133	115	—	—	—	344	323	—	—	—	—	2,154
10	43	Steward; Arthur Bonnett	Do. - - -	862	265	217	—	208	—	—	—	295	296	—	—	—	—	2,133
11	15	Redfern; Thomas Robert	North West Provinces, Punjaub and Oude.	736	220	237	305	307	—	—	—	—	—	261	—	—	—	2,066
12	4	Jenkyns; William - -	Do. - - -	946	244	300	258	297	—	—	—	—	—	—	—	—	—	2,045
13	30	Bird; George Emilius - -	Madras - - -	804	188	323	—	—	—	357	328	—	—	—	—	—	—	2,000

Final Examination. Candidates of 1868.

FINAL EXAMINATION. CANDIDATES OF 1868.

TABLE OF MARKS.—FINAL EXAMINATION OF THE CANDIDATES SELECTED IN 1868—*continued.*

Order of Merit.		Names of Candidates.	Presidency, &c.	Number of Marks obtained by each Candidate in															
In this Examination.	In the Open Competition.			Law.	History and Geography of India.	Political Economy.	Hindi.	Hindustani.	Bengali.	Tamil.	Telugu.	Gujarati.	Marathi.	Sanskrit.	Arabic.	Persian.	Braj Bhakha.	Total.
				Maximum.															
				1,250	350	350	400	400	400	400	400	400	400	500	400	400	400	—
14	3	Ibbetson; Denzil Charles Jelf	North West Provinces, Punjaub, and Oude.	1,017	215	241	248	251	—	—	—	—	—	—	—	—	—	1,972
15	36	Meiklejohn; David Ogilvy	Bengal (Lower Provinces).	880	198	262	—	286	326	—	—	—	—	—	—	—	—	1,952
16	12	Thomson; John Brown	North West Provinces, Punjaub, and Oude.	870	220	244	310	299	—	—	—	—	—	—	—	—	—	1,943
17	8	Buckland; Charles Edward	Bengal (Lower Provinces).	848	246	253	—	270	324	—	—	—	—	—	—	—	—	1,941
18	34	Cornish; Robert	Do.	840	260	252	—	246	298	—	—	—	—	—	—	—	—	1,896
19	29	Baines; Jervoise Athelstane	Bombay	780	244	250	—	—	—	—	—	295	318	—	—	—	—	1,887
	51	Horsley; William Henry	Do.	818	234	274	—	—	—	—	—	280	281	—	—	—	—	1,887
21	39	Elliot; Frederick Augustus Hugh.	Do.	754	218	263	—	—	—	—	—	276	316	—	—	—	—	1,857
22	37	Cunningham; William John	Do.	833	175	250	—	—	—	—	—	298	298	—	—	—	—	1,854
23	50	FitzGerald; James Richard	Do.	738	185	209	—	129	—	—	—	282	296	—	—	—	—	1,839
	44	MacCartie; Charles Falkiner	Do.	744	248	209	—	—	—	—	—	300	338	—	—	—	—	1,839
25	28	Paul; Alfred Wallis	Bengal (Lower Provinces).	854	198	189	—	279	302	—	—	—	—	—	—	—	—	1,822
26	23	Weidemann; George Lever	Do.	735	244	292	—	238	287	—	—	—	—	—	—	—	—	1,796
27	35	Skrine; Francis Henry Bennet.	Do.	740	208	222	—	260	333	—	—	—	—	—	—	—	—	1,763

TABLE OF MARKS.—FINAL EXAMINATION OF THE CANDIDATES SELECTED IN 1868—*continued.*

Order of Merit.		Names of Candidates.	Presidency, &c.	Maximum.	NUMBER OF MARKS OBTAINED BY EACH CANDIDATE IN													
In this Examination.	In the Open Competition.			Law.	History and Geography of India.	Political Economy.	Hindi.	Hindustani.	Bengali.	Tamil.	Telugu.	Gujarati.	Marathi.	Sanskrit.	Arabic.	Persian.	Braj Bhakha.	Total.
				1,250	350	350	400	400	400	400	400	400	400	500	400	400	400	—
28	41	Batty; Herbert - - -	Bombay - - -	779	170	239	—	—	—	—	—	253	316	—	—	—	—	1,757
29	32	Macaulay; Colman Patrick Louis.	Bengal (Lower Provinces).	750	175	151	—	233	323	—	—	—	—	—	—	—	111	1,743
30	5	Clarke; Robert - - -	North West Provinces, Punjaub, and Oude.	753	208	243	256	269	—	—	—	—	—	—	—	—	—	1,729
31	9	Morrison; William Hudson -	Do. - - -	730	175	238	289	281	—	—	—	—	—	—	—	—	—	1,713
32	49	Jacob; Philip - - -	Bombay - - -	697	175	228	—	—	—	—	—	313	296	—	—	—	—	1,709
33	38	Ommanney; Henry Travers -	Do. - - -	741	170	197	—	—	—	—	—	297	296	—	—	—	—	1,701
34	45	Acworth; Harry Arbuthnot -	Do. - - -	667	198	243	—	—	—	—	—	277	302	—	—	—	—	1,687
35	18	Bullock; Frederick Shore -	North West Provinces, Punjaub, and Oude.	704	175	252	272	244	—	—	—	—	—	—	—	—	—	1,647
36	30	Abbott; Leonard Charles -	Bengal (Lower Provinces).	683	180	243	—	241	271	—	—	—	—	—	—	—	—	1,618
37	27	Brown; Arthur Ormsby -	Do. - - -	722	175	215	—	232	273	—	—	—	—	—	—	—	—	1,617
38	48	Frost; Charles Evitt - -	Bombay - - -	686	198	182	—	—	—	286	260	283	251	—	—	—	—	1,600
39	47	Underwood; Walter Gregory -	Madras - - -	668	175	206	—	—	—	—	—	—	—	—	—	—	—	1,595
40	40	McCallum; Edwin - - -	Bombay - - -	629	222	182	—	—	—	—	—	296	264	—	—	—	—	1,593
41	32	Marsden; Delahene Weston -	Bengal (Lower Provinces).	668	198	183	—	264	282	—	—	—	—	—	—	—	—	1,585

FINAL EXAMINATION. CANDIDATES OF 1868.

LIST,

Resulting from the combination of the Marks obtained in the First, Second, Third and Final Periodical Examinations.

No.	Name.	Presidency, &c.	Total.
1	James ; Stephen Harvey	N.W. Provinces, Punjaub, and Oude.	11,189
2	Channing ; Francis Chorley	Ditto	11,096
3	Burgess ; George Douglas	Bengal (Lower Provinces)	10,995
4	Deas ; Joseph	N.W. Provinces, Punjaub, and Oude.	10,594
5	Dames ; Mansel Longworth	Ditto	10,515
6	Fisher ; Frederic Henry	Ditto	10,126
7	Rivaz ; George Wilmot	Ditto	8,960
8	Monteath ; James	Bombay	8,496
9	Redfern ; Thomas Robert	N.W. Provinces, Punjaub, and Oude.	8,370
10	Jenkyns ; William	Ditto	8,101
11	Bird ; George Emilius	Madras	7,692
12	Thomson ; John Brown	N.W. Provinces, Punjaub, and Oude.	7,429
13	Macaulay ; Colman Patrick Louis	Bengal (Lower Provinces)	7,316
14	Elliot ; Frederick Augustus Hugh	Bombay	7,198
15	Baines ; Jervoise Athelstane	Ditto	7,147
16	Ibbetson ; Denzil Charles Jelf	N.W. Provinces, Punjaub, and Oude.	7,006
17	Bourdillon ; James	Bengal (Lower Provinces)	6,985
18	Steward ; Arthur Bennett	Bombay	6,917
19	Horsley ; William Henry	Ditto	6,897
20	Jacob ; Philip	Ditto	6,794
21	MacCartie ; Charles Falkiner	Ditto	6,758
22	Buckland ; Charles Edward	Bengal (Lower Provinces)	6,719
23	Morrison ; William Hudson	N.W. Provinces, Punjaub, and Oude.	6,696
24	Batty ; Herbert	Bombay	6,679
25	Meiklejohn ; David Ogilvy	Bengal (Lower Provinces)	6,648
26	Brown ; Arthur Ormsby	Ditto	6,595
27	Skrine ; Francis Henry Bennet	Ditto	6,558
28	FitzGerald ; James Richard	Bombay	6,456
29	Underwood ; Walter Gregory	Madras	6,377
30	Paul ; Alfred Wallis	Bengal (Lower Provinces)	6,280
31	Cornish ; Robert	Ditto	6,262
32	McCallum ; Edwin	Bombay	6,206
33	Marsden ; Delabene Weston	Bengal (Lower Provinces)	6,141
34	Frost ; Charles Evitt	Bombay	6,071
35	Abbott ; Leonard Charles	Bengal (Lower Provinces)	6,066
36	Bullock ; Frederick Shore	N.W. Provinces, Punjaub, and Oude.	6,032
37	Ommanney ; Henry Travers	Bombay	6,021
38	Weidemann ; George Lever	Bengal (Lower Provinces)	5,436
39	Cuningham ; William John	Bombay	5,366
40	Acworth ; Harry Arbuthnot	Ditto	5,297
41	Clarke ; Robert	N.W. Provinces, Punjaub, and Oude.	4,961

PRIZES AWARDED.

After a Special Examination held for the purpose.

Law	*None awarded.*	
History and Geography of India	£50.	Mr. James.
Political Economy	£50.	Mr. Bird.
Hindi	£50.	Mr. James.
Hindustani	*None awarded.*	
Bengali	£50.	Mr. Burgess.
Tamil	£50.	Mr. Bird.
Telugu	*None awarded.*	
Gujarati	£50.	Mr. Monteath.
Marathi	£50.	Mr. Monteath.
Sanskrit	£75.	Mr. Channing.
Persian	£50.	Mr. James.

TABLE OF MARKS.—EXAMINATION FOR INDIA FOREST DEPARTMENT.—JANUARY 1870.

Name or Number of Candidate, and Date of Competition.	Department and Situation.	Arithmetic.	Orthography.	Hand Writing.	Intelligence.	English Composition.	Algebra.	Euclid.	Trigonometry.	Freehand Drawing.	German.		French.		Surveying.	Plan Drawing.	Mechanical Philosophy.	Chemistry.	Geology, &c.	Botany.	Total.
											Translation.	Oral.	Translation.	Oral.							
December, 1869.	**Maximum** -	350	300	200	100	200	300	300	300	300	200	100	200	100	300	300	300	300	300	300	4750
Fisher; W. R. (*f.*) -	Junior Appointments in the Forest Department in India.	236	270	135	100	180	296	268	269	225	130	30	180	91	132	117	133	—	186	—	2978
Hight; G. A. (*g.*) -		200	225	125	98	160	184	136	138	45	170	85	140	65	—	159	167	—	—	—	2097
Dansey; E. P. (*f.*)		89	255	115	95	120	138	129	70	45	170	95	180	94	57	30	8	69	141	127	2027
Greatheed; C. (*f.*)		180	295	150	100	106	150	64	158	120	—	—	170	70	114	249	83	—	—	—	2018
Johnston; W. (*g.*)		177	190	105	98	102	100	160	83	105	130	70	50	25	255	255	24	22	—	—	1951
Hutchins; D. E. (*f.*)		107	105	90	100	160	81	159	100	129	—	—	154	50	120	174	76	150	132	—	1887
Hill; H. C. (*f.*) -		266	180	130	98	98	247	185	179	90	—	—	120	50	54	54	78	—	—	—	1829
Popert; E. P. (*g.*)		239	285	125	100	140	114	87	40	120	140	60	130	20	90	—	28	38	14	—	1770
No. 9 - -		114	295	130	98	160	112	136	43	180	—	—	150	83	114	36	31	—	48	—	1730
No. 10 - -		137	185	110	93	90	180	190	217	60	—	—	150	57	96	87	—	50	—	—	1702
Dunbar; W. C. (*g.*)		74	280	125	100	150	38	112	66	90	180	90	130	80	—	30	—	—	156	—	1701
No. 12 - -		208	0	150	75	104	186	176	124	30	160	95	120	68	51	48	95	—	—	—	1690
No. 13 - -		91	300	145	100	160	76	84	47	75	120	55	180	37	—	—	104	106	—	—	1680
Edgeworth; T. N. (*g.*)		85	255	120	96	140	86	150	105	90	150	70	180	65	—	—	—	—	—	—	1592
Ross; G. J. S. (*g.*)		136	220	140	97	160	78	123	21	105	140	60	110	0	90	69	—	—	—	—	1549
No. 16 - -		105	215	140	100	100	122	129	93	120	—	—	140	68	—	18	128	—	56	—	1534
No. 17 - -		172	235	140	100	170	90	131	109	150	—	—	120	60	—	—	—	—	—	—	1477
No. 18 - -		114	85	130	90	104	88	108	63	105	120	60	130	68	90	93	—	—	—	—	1448
No. 19 - -		111	230	110	98	175	24	76	5	105	160	90	120	56	—	0	—	—	—	—	1360
No. 20 - -		74	235	120	90	150	37	24	12	0	160	75	134	60	147	15	20	4	—	—	1357
No. 21 - -		132	150	140	95	100	71	84	37	135	90	60	0	0	48	57	—	—	—	—	1199
No. 22 - -		43	175	105	90	135	45	67	27	60	60	15	170	82	—	57	—	—	—	—	1131
No. 23 - -		145	135	90	90	140	41	62	—	30	100	55	140	80	—	—	—	—	—	—	1108
No. 24 - -		13	215	105	75	106	70	57	23	66	180	90	—	—	—	—	—	—	—	—	1000
No. 25 - -		12	140	120	93	100	16	80	—	45	120	60	110	45	—	—	—	—	—	—	941

(*f.*) These candidates were selected for instruction in France.

(*g.*) These candidates were selected for instruction in Germany.

Printed by G. E. EYRE and W. SPOTTISWOODE, Printers to the Queen's most Excellent Majesty. For Her Majesty's Stationery Office.

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Vol. 9.

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1870.

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[C 118] Index to the Reports of the Commrs. of H. M. Customs on the Customs from 1857 to 1869.

[C 219] Sixteenth Report of the Postmaster General on the Post Office.

REFORM CLUB
PALL MALL

FOURTEENTH REPORT

OF

THE COMMISSIONERS OF HER MAJESTY'S CUSTOMS

ON

THE CUSTOMS.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
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FOURTEENTH REPORT.

TO THE RIGHT HONOURABLE THE LORDS COMMISSIONERS OF HER MAJESTY'S TREASURY.

My Lords,

In our last Report we spoke of the year 1868 as exhibiting cheering symptoms of an approaching revival of trade from the depressed condition which characterized the year 1867, and we ventured to express a confident hope that, should this country be blest with another harvest at all approaching the favourable character of that of 1868, a great impetus would immediately be given to all commercial transactions, which must result in a decided improvement in the returns of consumption, and consequently in the amount of revenue collected by this department. Events of the year 1869.

The harvest of 1869, and especially the wheat harvest, was unfortunately much below the average, both as to quantity and quality, not only in this country but in most of the wheat producing countries of Europe. The effect however of the high prices prevailing here in 1867 and 1868, (which induced the foreign growers to lay a greatly extended acreage under wheat,) coupled with the abundance of the harvest on the Continent in 1868, and with the increased attraction held out to the importers of corn into this country by the repeal of the last remnant of duty in April last year, has undoubtedly been, towards the close of the year 1869, to glut our markets for the time, and to pour into this country a supply of corn which has proved (notwithstanding the deficiency in our own crop) to be in excess of our requirements. This result, though unfavourable to the British producer, must have been most beneficial to the consumers during the latter part of the year, the average prices of wheat, owing to the rapid fall between August and December last, showing a decline below those of 1868 of 15*s.* 7*d.* and below those of 1867 of 16*s.* 3*d.* per quarter.

The effect therefore which we anticipated from a second abundant harvest in this country has been partially arrived at, though by other means, and, had the great saving thus made possible in the cost of bread extended through the whole instead of the latter months only of the year, we should have found that a corresponding outlay had become practicable on other articles of general use, and an improvement would have been apparent in those of our annual returns that deal with the quantities of these articles entered for home consumption; though, however, owing to the slackness still existing in some of the principal branches of our trade, the depression of wages till quite the close of the year, and the consequent distress among a portion of our labouring population, this general increase of consumption will not be found to have taken place, we shall yet be able to show, as regards the year just concluded, that the causes above set forth, coupled with a prevailing cheapness in the money market, and the absence of all disturbing elements in our home and foreign relations, have led to increased activity in many of the most important trades of the country, and have produced a visible progress in those other returns in which the values both of exports and imports are recorded.

Exports.

Beginning therefore with the returns connected with our export trade, we find—

Values, British and Irish.

That the total values of the British and Irish exports have not only largely exceeded those we gave for 1868, but have more than recovered the deficiency shown in that year as compared with 1867, having now reached a point never attained in 1866 or indeed in any preceding year.

The return for the last four years is as follows:—

Appendix A.

Declared value of British and Irish exports.

	£
1866	188,917,536
1867	180,961,923
1868	179,677,812*
1869	190,045,230

Increase in 1869 over 1868, 5·7 per cent.
Increase in 1869 over 1866, ·6 per cent.

---

* The amounts of quantity, value, &c. given in this report for the year 1868 will be found to differ (though seldom to any considerable extent) from those which appeared in our report of last year; such differences are explained by the fact that at the time when that report was published the accounts of 1868 had not undergone the final process of revision and adjustment.

Looking for a moment at the returns in which the *quantities* of the principal articles of British and Irish produce exported are given, we find that, although there has been a very considerable falling off in the export of cotton manufactures, as compared with the quantities given for 1868, owing to the still depressed condition of that branch of our trade, amounting to a decrease of 111,000,000 yards of manufactured goods, and 5,000,000 yards of yarn, yet in almost all the other articles of importance there has been a decided increase in the *quantities* exported.

Thus there has been an increase in the export of—

Cotton thread of - -	240,000 lbs.
Earthenware and porcelain -	27,000 packages.
Linen yarn - -	1,700,000 lbs.
Linen manufactures -	4,600,000 yards.
Iron manufactures and unwrought steel -	600,000 tons.
Wool - - nearly	3,000,000 lbs.
Woollen and worsted manufactures, except stuffs -	8,000,000 yards.
And worsted stuffs -	25,000,000 yards.

Some other articles of general export for which the *values* only are given in the returns, show also an increase as follows; viz.:

	£
Haberdashery and millinery - -	100,000
Hardware and cutlery - -	500,000
Machinery - - -	400,000

On the other hand there has been a decrease (in addition to that stated for cotton manufactures and yarn) in the *quantities* of woollen and worsted yarn of 4,870,000 lbs., and of 240,000 tons in coals exported.

If we turn from this yearly return to the statement of the values of the exports for each month, for the purpose of showing the steadiness of the progress made, we find that in nine months out of the twelve there has been an increased exportation over the corresponding months of 1868, the months of February, September, and October, being the only three that show a falling off in amount.

When, however, we proceed to distinguish between the Exports to Foreign Countries and to the British Possessions respectively, we certainly find in the latter return a decrease in 1869, as compared with all the three preceding years.

To Foreign countries.

For while the total values of the British and Irish exports to all foreign countries have been—

	£
In 1866	135,198,165
1867	131,162,313
1868	129,812,888, and
1869	141,954,914

showing the same superiority over all former years as is exhibited in the general return, the total values of the British and Irish exports to British possessions are as follows :—

To British Possessions.

	£
In 1866	53,719,371
1867	49,799,610
1868	49,864,924, and
1869	48,090,316

showing a deficiency as compared with 1868 of 1,774,608*l.*, or 3·5 per cent., and with 1866 (the year in which the exports to the British Possessions reached the highest point) of 5,629,055*l.*, or 10·5 per cent.

Ninth Report, p. 7. Tenth Report, p. 6.

It will also be seen by a reference to our 9th and 10th reports (on the years 1864 and 1865), that in 1863, 1864, and even in 1865, (when there was a falling off,) the values of the exports to the British Possessions were higher than they have been in 1869, being—

	£
In 1863	50,879,270
1864	51,714,418
1865	48,207,110

Confining ourselves, however, at present to the comparison of 1869 with 1868, we find that the whole of this deficiency in the values of the exports to our colonies is much more than accounted for, by a diminished export to two out of the three divisions of British India.

To British India.

The following are the figures :—

Value of Exports to British India.	1868.	1869.
	£	£
Bombay and Scinde	7,029,975	5,195,266
Madras	1,570,907	1,599,358
Bengal and Pegu	12,650,891	10,771,145
Total	21,251,773	17,565,769

showing a decrease of 3,686,004*l.*

If we turn again to the returns giving the *quantities* of articles of British and Irish produce exported, we see there was a falling off in 1869 in the exports to British India of—

Coals - - -	79,000 tons.
Cotton manufactures -	213,000,000 yards.
„ yarn - -	2,750,000 lbs.
Linen manufactures - -	1,800,000 yards.
Iron manufactures (except railroad iron and boiler plates, the quantities of which exported, have greatly increased) -	44,700 tons.
Woollen and worsted manufacture - -	400,000 yards.
Worsted stuffs - -	300,000 „

The exports also of apparel and slops, earthenware and porcelain, haberdashery, hardware and cutlery, and machinery (for which articles the values only and not the quantities are given in our returns) show a diminished value in the aggregate of nearly 350,000*l.*

To other British Possessions.

The exports to Ceylon have participated in the decline visible in those to India, but the exports to all the other principal colonies, show an increase in 1869 as compared with 1868.

	£
Thus, to Australia there is an increase in values of - - - -	1,348,000
To British North America - -	309,000
„ „ West Indies - - -	45,000
„ Singapore - - - -	200,000
„ Gibraltar - - - -	115,000
„ Malta - - - -	26,000
„ Cape of Good Hope - - -	4,000

To Foreign Countries.

Reverting now to the details of the exports to each foreign country, of which the total values only have been given above, we find that there has been an increase in the values of British and Irish exports (giving round numbers only)—

	£
To the United States - - - - of	3,196,000
Russia - - - - - „	2,219,000
Egypt - - - - - „	1,930,000
Brazil - - - - - „	1,613,000
Italy - - - - - „	1,122,000
Belgium - - - - „	842,000

		£
To France	of	807,000
China	„	534,000
Holland	„	363,000
Argentine Confederation	„	348,000
Japan	„	329,000
Austria	„	263,000
Peru	„	250,000
Prussia	„	162,000
And Denmark	„	125,000

in addition to many other smaller increases, such as to Sweden, Portugal, Norway, Greece, &c.

This must be admitted to be a most satisfactory return, and embraces almost all the principal countries; the only decreases of any moment being the following, viz.:—

	£
To the Foreign West Indies	1,357,000
Turkey	345,000
New Grenada	220,000
And Mexico	211,000

To United States.

It has been our practice in these reports to remark specially upon our exports to the United States and to France, and, for this purpose, we must beg a reference to Appendices O., No. 1., and Q., No. 1., respectively.

Appendix O., No. 1.

In our last two reports we have had to record a falling off in our exports to the United States, amounting, in 1867, as compared with 1866, to nearly 7,000,000*l.*, or 24 per cent., and in 1868, as compared with 1867, to 390,000*l.*, or 1·8 per cent.

The recovery which thus appears to have commenced in 1868 has made a most decided advance in 1869; the values of our exports to the United States having in that year risen far above those in any previous year with the exception of the year 1866, which was one of unusual speculation.

The figures for the last four years and for 1860, the year before the commencement of the war in America, extracted from the totals given in Appendix O., No. 1., are as follows:—

1860.	1866.	1867.	1868.	1869.
£21,667,065	28,499,514	21,825,703	21,431,632	24,624,311

Increase in 1869 as compared with 1868 £3,192,679
or nearly 15 per cent.

Increase in 1869, as compared with 1860 £2,957,246
or 13 per cent.

This increase of our exports during the past year, in spite of a tariff in America which contains 2,000 articles liable to duty, and shows an average rate of duties on imports amounting to 47 per cent.,* ad valorem, must be looked upon as a surprising proof of the perseverance and energy of the British trader.

Looking for a moment at the values of the different articles given in Appendix O., No. 1., we find that of the British and Irish Exports to the United States there is an increase in— Appendix O., No. 1.

	£
Cotton, piece goods of	570,245
Linen do.	412,615
Tin plates	267,380
Railway iron	262,904
Wool, sheep, and lambs	190,309
Pig iron	143,882
Hardware and cutlery	102,292
Earthenware and porcelain	100,894
Woollen cloths and coatings	95,697
Do. carpets and druggets	322,726

besides several other minor increases of value; while there are only two articles in the whole list, in which the falling off amounts to as large a sum as 50,000*l.*

The British and Irish Exports to France show an increase of 7·3 per cent. in 1869, as compared with 1868. To France.

The figures are :—

1868.	1869.	Increase.
£10,652,734	11,438,330	785,596
		or, 7·3 per cent.

The decrease in 1868, as compared with 1867, was (as stated in our last Report), 1,468,276*l.*, or 12 per cent. Thirteenth Report, p. 8.

More than half of that decrease has, therefore, been recovered in the past year, though there still remains a considerable deficiency when we compare 1869 with 1866 and 1867, especially with the latter year, when the values reached the highest point they have ever attained.

* Report of Mr. Wells, Special Commissioner of Revenue, in the United States. Economist, March 12th, 1870.

The following is the comparison:—

1866.	1867.	1869.
£	£	£
11,700,140	12,121,010	11,438,330

Decrease in 1869, when compared with 1866, 261,810*l.*, or 2 per cent.

Decrease in 1869, when compared with 1867, 682,680*l.*, or $5\frac{1}{2}$ per cent.

On the other hand, if we go back to the year 1860, the date of the Commercial Treaty, we find, notwithstanding these fluctuations in amount and others that took place in 1863 and 1864, the general results to be most satisfactory.

The following is the comparison:—

1860.	1869.
£	£
5,249,980	11,438,330

Increase at the end of the 10 years, 6,188,350*l.*, or $117\frac{3}{4}$ per cent.

The current year 1870 being the date at which it is in the power of either contracting country to revise, or even put an end to the treaty, and much speculation and discussion having taken place on the subject, both in France and in this country, we shall go rather more fully into the question of the trade between the two countries on a subsequent page, after dealing with the values of the imports.

Appendix Q., No. 1.

Of the articles (given in detail in Appendix Q., No. 1.), 24 show an increase in value, as compared with the return for 1868, and 16 a decrease.

The only very large increase is in telegraph wire and apparatus, 533,965*l.*

The three next in importance are in—	£
Iron, wrought and unwrought	200,387
Woollen manufactures, cloths, coatings, &c.	194,870
Worsted stuffs	150,151
There is also an increase in—	
Unwrought tin, of	83,903
Cotton piece goods	58,760
Zinc, wrought and unwrought	45,121
Naptha and paraffine oil	40,095
Apparel and haberdashery	33,678
Wool, sheep and lambs	31,228
Cotton hosiery	31,001

On the other hand, there is a falling off in the values under the head of—

	£
Unenumerated articles, of - -	267,713
Woollen yarn - - -	187,988
Woollen manufactures (other than cloths, coatings, and worsted stuffs) - - - -	69,665
Wheat - - - -	53,475
Machinery (other than steam engines) - - - -	48,626
Horses - - - -	38,245
Silk Yarn - - - -	21,053

We think it unnecessary this year to go into a general comparison of the values with the quantities of British goods exported, as we have done in previous years. The variation in prices in the case of the cotton, iron, linen, and woollen manufactures has not been very important throughout the past year. The general tendency, however, appears to have been to a decline in the prices of most of the woollen goods, owing partly to a plentiful supply of the raw material, and partly to increased activity in the districts of their manufacture, which has been stimulated by the still depressed condition of the cotton trade. Appendix W.

The prices of the other manufactured articles appear, on the other hand, to have slightly risen, when compared with those ruling in 1868.

The values of the Foreign and Colonial exports show a falling off of more than a million. The figures are as follows:— Foreign and Colonial. Appendix A.

Values of Foreign and Colonial Exports:—

	£
1868 - -	48,100,642
1869 - -	47,061,095
Deficiency -	1,039,547, or 2 per cent.

From the tables which give the *quantities* of the articles of foreign and colonial produce exported, we find that there has been a considerable falling off in the quantities of coffee, corn and flour, cotton, brandy, rum, tea, and tobacco, and an increase, on the other hand, in the quan-

tities of silk, sugar refined, spirits mixed in bond, wine and wool, both of foreign and colonial produce.

Thirteenth Report, p. 11.

We mentioned the re-export of wool in 1868 as being very remarkable, amounting indeed to 105,000,000 lbs.; but the return of 1869 shows an increase even upon this large quantity of 11,500,000 lbs., bringing the total quantity re-exported up 116,500,000 lbs.

To United States and France. Appendices R. 1. and R. 2.

Appendices R. 1. and R. 2. give the details of the values of the foreign and colonial exports to the United States and to France.

The former shows a decline in the values of 207,023*l.*; the latter one of 1,022,551*l.*; but the export of these articles being so very much larger to France than to the United States, the proportion which the deficiency bears to the total export values is, as nearly as possible, the same in each case, being 8·7 per cent. in the former and 8·8 per cent. in the latter case.

This return does not show the values of these foreign and colonial exports to France in the year 1860. We have, however, obtained it from a former return, and comparing the amount 7,451,392*l.* with the total for 1869 11,838,898*l.*, we find an increase in the latter year of 4,387,506*l.*, or 58 per cent.

If we now bring the values of our British and Irish exports, and of the foreign and colonial, into one total, the comparative statement of our export trade, both in British and foreign goods, for the two years 1868 and 1869, will be as follows:—

Total Values of Exports.

		1868.	1869.
		£	£
British and Irish	To Foreign Countries	129,812,888	141,954,914
	To British Possessions	49,864,924	48,090,316
Total		179,677,812	190,045,230
Foreign and Colonial		48,100,642	47,061,095
Total exports		227,778,454	237,106,325

£

Increase in 1869 over 1868,—9,327,871, or 4 per cent.

Imports. Values.

We now come to the real values of the imports, and we find that as regards the comparative position of imports and exports, there is a material variation between the return for 1869 and that given last year for 1868.

We stated in our last report that, whereas the values of the exports had only been augmented, on a comparison with 1867, to the amount of ·7 per cent., those of the imports had made a material advance, amounting to 7·4 per cent. Thirteenth Report, p. 13. Thirteenth Report, p. 14.

In 1869, on the other hand, the export trade has progressed much more rapidly than the import trade.

We have just given the total increase on the exports as 4 per cent.

The increase on the imports is only 735,359*l.* or ·25 per cent.

We have never agreed with the theory now often propounded, viz., that a considerable excess in the values of the imports over those of the exports is a fact to be deplored, as affording evidence that the balance of trade is in favour of the foreigner, and we have already more than once combated that notion in these reports.

The advocates of that theory will, however, no doubt take much consolation from the return of 1869, by which the relative values of imports and exports appear to approach more closely to each other than they did in 1868.

The following are the figures giving the real values of the imports for the last four years :—

	£
1866	295,290,274
1867	275,183,137
1868	294,693,608
1869	295,428,967

Increase in 1869 over 1868,—735,359*l.* or ·25 per cent. Increase in 1869 over 1866 (the year in which the highest values hitherto known were attained)—138,693*l.* or ·05 per cent.

These figures show that the recovery which took place in 1868 from the temporary depression of 1867 has been fully maintained, and, though the further addition to the values of 1868 has been but small, yet there has at all events been no falling off, and the result is, that the import values like those of the exports, are higher in 1869 than they have been in any previous year in the history of this country.

Dividing this large amount as usual between the imports from foreign countries and from British posses-

sions, we find a falling off of more than two and a half millions in the imports from foreign countries, and an increase of three and a half millions (in round numbers) in the imports from our British possessions.

The exact figures are as follows :

	1868.	1869.	Increase.	Decrease.
	£	£	£	£
From foreign countries -	227,700,061	224,994,287	—	2,705,774 or 1·2 p. cent.
From British possessions	66,993,547	70,434,680	3,441,133 or 5·1 p. cent.	—
Total - -	294,693,608	295,428,967	735,359 or ·25 per cent.	

From Foreign countries. Decrease.

Taking first the return from foreign countries we find a falling off in the imports from—

	£
Russia of - - - -	3,380,000
China - - -	1,660,000
Prussia - - -	1,200,000
Egypt - - - -	790,000
Chili - - - -	730,000
United States - -	540,000
France - - - -	360,000
Philippine Islands - -	300,000
Spain - - - -	240,000
Denmark - - -	230,000
Argentine Confederation -	230,000
Brazil - - - -	140,000
Italy - - - -	60,000
Japan - - - -	14,000
Cuba and Porto Rico -	7,000

The largest falling off (exceeding indeed the total decrease in the imports from all foreign countries) is in the imports from Russia. This is owing to greatly diminished importations of wheat from that country; the quantities of that article having decreased from 10,053,617 cwts. to 9,158,331 cwts., a fall of 895,286 cwts. or 9 per cent.

There is also a decrease in the quantities of flax, flax-seed, and tallow sent us from Russia, though on the other hand the supplies of hemp and of timber show an increase over those sent in 1868.

On the other hand there has been an increase in the values of the imports from	£	Increase.
Holland of	1,350,000	
Belgium	1,130,000	
Hanse Towns	1,030,000	
Portugal	410,000	
Greece and Ionian Islands	380,000	
Hanover	310,000	
Austria	250,000	
Sweden	100,000	
Norway	30,000	

The largest increases here given are from Holland, Belgium, and the Hanse Towns, and they have arisen upon the following articles:—

From Holland, chiefly in cattle, cheese, butter, refined sugar, and corn.

From Belgium, principally in silk manufactures, cattle, zinc, butter, hops, potatoes, glass manufactures, &c.; and

From the Hanse Towns, chiefly in cattle, sugar (unrefined), bacon, lard, pork (salted and fresh) woollen yarn, clover seed, &c.

The falling off in the values of the imports from the United States (the exact amount of which is 542,372*l.* or 1·3 per cent.), is divided between the Northern, Southern, and Pacific Ports, as follows:— From the United States. Appendix O. No. 2.

——	1867.	1868.	1869.	Increase in 1869 as compared with 1868.	Decrease in 1869 as compared with 1868.
	£	£	£	£	£
Northern Ports -	20,708,894	18,914,036	21,716,954	2,802,918	—
Southern Ports -	18,503,666	21,836,515	18,926,290	—	2,910,225
Ports on Pacific -	1,833,397	2,311,748	1,876,683	—	435,065
Total - -	41,045,957	43,062,299	42,519,927	2,802,918	3,345,290
					2,802,918
		Total decrease - -			£542,372

Thirteenth Report, p. 16.

As the return for 1868 giving the relative position of the ports in each division of America, as regards the exports to this country, was the reverse of that for 1867, so now, in 1869, the results are again reversed.

The Northern Ports show an increase of nearly 3,000,000*l.*, instead of a decrease of nearly that amount.

The Southern Ports a falling off of nearly 3,000,000*l.*, instead of a rise of more than that amount, and the ports on the Pacific, a decrease of 435,000*l.* in round numbers, instead of an increase of 510,000*l.*

The total decrease on the balance, which is but 542,372*l.*, is entirely accounted for by the large falling off in the values of cotton imported from the United States. The loss indeed on the total values of the imports from the United States would have been much more considerable on this account, had it not been for the greatly increased importation of wheat and wheat meal from that country.

The following return will show how nearly the increase in the value of these cereals equals the loss on that of cotton.

Values of cotton imported from the United States:

1868.	1869.	Decrease in 1869.
£	£	£
27,018,769	23,706,662	3,312,107

Value of wheat and wheat meal imported from the United States:

1868.	1869.	Increase in 1869.
£	£	£
4,995,852	8,109,395	3,113,543

There is a large decrease however in the values of another cereal product, viz., Indian corn, which amounts to upwards of a million, and in various articles of minor importance there is also a falling of.

These are, however, so nearly balanced by considerable increases in other articles in the list as to produce the comparatively small result above given as the decrease in the aggregate value.

For instance there is a rise in the values—

	£
Of Hops of	519,000
„ Bacon and hams	406,000
„ Unmanufactured tobacco	325,000
„ Cheese	172,000
„ Tallow	143,000
„ Petroleum	139,000
„ Wood and timber, unsawn	105,000
„ Oil sperm	166,000

The return of our imports from France, exclusive of corn and flour, shows, like that from the United States, a falling off in values in 1869 as compared with 1868. From France.

The amount (986,132*l.*) is made up, as will be seen by a reference to Appendix Q. No. 2., by decreases on most of the more important articles; viz. on— Appendix Q. No. 2.

	£
Cotton manufactures	149,000
Fruit, raw	26,000
Garancine	155,000
Glass (plate)	2,000
Hides (tanned)	38,000
Hops	80,000
Gloves	97,000
Boots and shoes	17,000
Madder	166,000
Musical instruments	24,000
Oil or spirit of turpentine	33,000
Potatoes	117,000
Seeds, clover	117,000
Silk, raw	1,056,000
„ waste, &c.	68,000
„ thrown	270,000
Spirits, brandy	61,000
Wine	290,000

The increases on the other hand that appear in this account are—

	£
On animals	350,000
Brass and bronze manufactures	3,000
Butter	75,000

	£
China and porcelain	12,000
Clocks	9,000
Cotton, raw	127,000
Eggs	74,000
Flowers, artificial	22,000
Boot fronts	3,000
Silk manufactures of Europe	598,000
Sugar, refined and unrefined	146,000
Wool (sheep and lambs)	68,000
Woollen manufactures	106,000

This return is exclusive of corn and flour, on the values of which, imported from France in the year, there is an increase of 626,000*l.* in round numbers as compared with 1868. So that the falling off in the total imports will be reduced by this means to 360,000*l.*, or about one per cent. on the total values of the goods brought to this country from France in 1868.

Comparison of 1860 with 1869.

If we now go back, as we have done in the case of the exports, to the year of the Commercial Treaty between France and this country (1860), we find the comparative statement for 1860 and 1869, to be as follows :—

Value of Imports from France into United Kingdom.

	1860.	1869.
	£	£
Values of general imports, exclusive of corn and flour	13,874,736	31,359,253
Values of corn and flour	3,899,302	2,177,719
Total	17,774,038	33,536,972

Increase at the end of ten years, 15,762,934*l.* or 88·6 per cent.

We have already shown that the values of our British and Irish exports to France have advanced during the past ten years to the extent of 117 per cent., and those of our foreign and colonial exports 58 per cent.

Placing, therefore, for the sake of easy reference, the whole of our trade with France, both inwards and outwards, into one return, and giving the comparison between 1860 and 1869, the figures will be as follows :—

TRADE WITH FRANCE.

1860.

Values of Exports to.		Values of Imports from.	
	£		£
British and Irish - -	5,249,980	General imports exclusive of corn and flour -	13,874,736
Foreign and colonial -	7,451,392	Corn and flour - -	3,899,302
Total export trade -	12,701,372	Total import trade -	17,774,038

1869.

Values of Exports to.		Values of Imports from.	
	£		£
British and Irish -	11,438,330	General imports exclusive of corn and flour -	31,359,253
Foreign and colonial -	11,838,898	Corn and flour - -	2,177,719
Total export trade -	23,277,228	Total import trade -	33,536,972

Increase in exports to France in 10 years, 10,575,856*l.*, or 83·2 per cent.

Increase in imports from France in 10 years, 15,762,934*l.*, or 88·6 per cent.

The close approximation of these two results to each other, is, in our opinion, a sufficient answer to the attacks that have been made upon the treaty on both sides of the water, as tending to show that both countries have shared nearly in equal proportions in the benefits derived from a closer and freer intercommunication.

Looking again at the details given in Appendix Q. No. 1. we see that, on a comparison of the year 1869 with 1860, the values of nearly every article of British and Irish produce exported to France have very considerably increased. Appendix Q. No. 1.

To take only the chief staples of our trade and manufacture we find the increases in the ten years, to be as follows:—

DECLARED VALUES.

	1860.	1869.	Increase per cent.
	£	£	
Appendix Q. No. 1. Coals	564,243	869,137	54
Cotton yarn	50,459	242,018	384
Cotton piece goods and hosiery	248,261	1,195,077	381
Earthenware and porcelain	7,377	33,615	371
Hardware and cutlery	118,265	228,879	94
Linen yarns	70,620	230,505	228
„ piece goods	61,097	191,323	213
Machinery (other than steam engines)	158,018	301,303	91
Iron, wrought and unwrought	370,381	704,440	90
Silk manufactures	60,124	113,630	89
Telegraph wire and apparatus	75,461	534,432	612
Woollen yarn	223,828	705,573	202
Woollen manufactures of all sorts	293,639	2,183,664	644

Let us now look at the other side of the account, as stated in Appendix Q. No. 2. The increases in the ten years in the values of the principal French goods imported into the United Kingdom are the following:—

REAL VALUES.

	1860.	1869.	Increase per cent.
	£	£	
Appendix Q. Butter	441,641	2,231,450	405
Eggs	399,648	974,895	144
Raw Cotton	62,562	187,227	199
Cotton Manufactures	384,251	569,814	48
Gloves	566,069	1,022,766	81
Oil Seed Cake	165,667	416,955	152
Potatoes	74,527	190,977	156
Seeds, Clover	169,254	185,989	10
Silk (Raw)	496,353	1,448,513	192
„ Waste, &c.	164,558	179,110	9
„ Thrown	172,357	569,653	231
„ Manufactures of Europe	2,276,909	8,994,314	295
Spirits, viz. Brandy	1,058,379	1,233,711	17
Sugar, Refined and Unrefined	786,927	1,304,364	66
Wine	1,036,620	1,585,858	53
Wool (Sheep and Lambs)	89,734	142,044	54
Woollen Manufactures	1,049,347	1,590,096	52

The increase, shown in this latter table, in the importation of many of the articles, such as brandy, sugar, wine, and the raw materials for manufacture,

(silk raw, cotton raw, and wool,) can certainly only be looked upon as an advantage to this country, while the vast rise in the values of the imports of silk manufactures (part of which may however be attributed not to increased quantities but to augmented prices), and the considerable increase in the manufactures of wool and cotton, are more than compensated for in the other table (from Appendix Q. No. 1.) just given, by the numerous increases in the export values of almost every article of our home manufacture.

A question of this nature must of course be treated generally, with reference to the advantage and disadvantage to the country at large, and not to the interests of individual trades.

It is however interesting to observe that, notwithstanding the complaints that have arisen from Macclesfield, Coventry and Spitalfields against the operation of the treaty,—complaints which may seem borne out to some extent by the vast increase in the imports of silk manufactures;—the value of such manufactures made in England and exported to France has, in the same period, been augmented to the extent of 89 per cent.

The answer to a similar complaint from Manchester obviously is, that the increase in the values of the exports of cotton manufactures to France in the ten years has been no less than 381 per cent.

From British Possessions.

Of our British Possessions 11 show an increase in 1869, as compared with 1868, in the values of the goods they have sent us, and 8 a decrease.

The large addition to the values of the imports from the three Presidencies of India, raising the amount from 30,071,871*l.* in 1868 to 33,245,508*l.* in 1869, an increase of 3,173,637*l.*, assisted by augmented importations from the adjoining Straits Settlements, Ceylon, and Hong Kong, and from British North America, not only counterbalance, but, considerably exceed, the falling off in the values of the imports from Australia, which commenced, in 1868, by a decline of 300,000*l.*, and has continued, in 1869, by a decrease amounting to 425,000*l.*

This decline is indeed attributable almost entirely to the decrease in the values of wool, the prices of which have greatly fallen in 1869, as may be seen by the following returns:—

QUANTITIES and VALUES of WOOL imported from Australia.

	1868.	1869.	Increase in 1869.	Decrease in 1869.
Quantities - - -	lbs. 155,745,199	lbs. 158,477,960	lbs. 2,732,761 or 1¾ per cent.	—
Values - - -	£ 10,345,308	£ 9,853,943	—	£ 491,365 or 4¾ per cent.

The other colonies in the list, in addition to Australia, from which the values of the imports have decreased, are Ascension, St. Helena, Cape of Good Hope, Mauritius, British West India Islands (other than Bahamas and Turk's Island), British Guiana, and the Falkland Islands.

Transhipments Values.

The total value of foreign merchandize transhipped at ports in the United Kingdom in the years 1868 and 1869 respectively was as follows :—

Year.	Declared Value of Articles entered at Value.	Computed Real Value of Articles entered by Quantities.	Total Value.
	£	£	£
1868	4,247,692	3,033,252	7,280,944
1869	4,886,413	3,228,590	8,115,003

showing an increase in 1869, as compared with 1868, of 834,959*l.*, or 11 per cent.

The principal countries from which articles are imported into the United Kingdom for transhipment to other parts of the world are France, Belgium, and the Hanse towns. The values of the different articles imported for this purpose from these three countries amounted in 1868 to upwards of 5,000,000*l.* out of the 7,200,000*l.* given above. In 1869 they were rather less in proportion to the total amount, being 4,900,000*l.* (in round numbers) out of 8,100,000*l.*

The country, on the other hand, which receives transhipment goods from us in the largest quantities is the United States, which took in 1868 goods valued at

2,344,558*l.*, and in 1869 a value of 2,432,542*l.*, being an increase in the latter over the former year of 87,984*l.*, or 3·7 per cent.

The four next countries on the list of recipients are Australia, British India, Turkey, and China, though the values of the goods transhipped to each fall far short of those to the United States. They are as follows:—

Value of Goods transhipped to

Year.	Australia.	British India.	Turkish Dominions.	China.
	£	£	£	£
1868	518,350	457,151	411,038	367,445
1869	545,616	622,408	411,955	607,870

The articles transhipped include almost every description of imported goods.

The greatest increase in the *quantities* transhipped of late years has been in the article of coffee, which has risen (giving round numbers only), from 195,000 lbs. in 1860 to 10,700,000 lbs. in 1867, and to 13,600,000 in 1868, but has declined again in 1869 to 11,700,000 lbs. Quantities.

The transhipment of tea has also largely increased, this country having become the great central market for the supply of that article to the principal countries of Europe and even to America. Large quantities of brandy and geneva are also transhipped every year.

The following is the return of the quantities of these three articles transhipped for the last three years.

Year.	Tea.	Brandy.	Geneva.
	lbs.	galls.	galls.
1867	1,319,739	767,823	623,956
1868	2,452,550	1,019,435	832,328
1869	3,720,114	959,098	878,065

The following are the usual tabular statements giving the comparison of the quantities of the principal articles imported into this country in the years 1868 and 1869 respectively. Imports. Quantities.

TABLE I.

QUANTITIES of Principal Articles imported which show an Increase in 1869 as compared with 1868.

ARTICLES.	1868.	1869.	Increase per cent.
Corn and flour - - cwts.	66,981,153	79,914,055	19·3
Hemp and jute - - „	3,281,268	3,551,838	8·2
Sugar, refined - - - „	729,865	1,068,940	46·4
Tobacco - - - lbs.	50,745,848	55,060,600	8·5
Wine - - - galls.	16,953,429	17,184,307	1·3
Wool - - - lbs.	250,928,854	255,161,343	1·6

TABLE II.

QUANTITIES of Principal Articles imported which show a Decrease in 1869 as compared with 1868.

ARTICLES.	1868.	1869.	Decrease per cent.
Coffee - - - lbs.	173,902,477	173,416,332	·27
Cotton (raw) - - cwts.	11,857,893	10,900,088	8
Flax - - - „	1,816,669	1,535,322	15·4
Silk (raw) - - - lbs.	7,036,177	5,573,366	20·7
Spirits of all sorts, not sweetened or mixed - galls.	12,831,263	11,391,506	11·2
Sugar (unrefined) - - cwts.	11,796,161	11,033,653	6·4
Tea - - - lbs.	154,845,863	139,223,298	10
Timber and wood goods - loads	3,804,953	3,665,859	3·6

By these tables it will be seen that 8 out of the 14 principal articles have been imported in smaller quantities in 1869 than in 1868.

Twelfth Report, p. 22.

The same result was exhibited by these tables in 1867, and four out of the six articles now showing an increase appeared also in Table I. in that year. In 1868 the return was more favourable as increases appeared in 11 out of 14 articles.

We have a few remarks to make upon some of these articles.

Corn and flour.—We have in the first pages of this report spoken of the vast importations of corn and flour in 1869, and attempted to explain the causes that have led to it. The quantity brought is certainly quite unprecedented. Increases.

The imports of corn and flour for the last seven years have been, as follows :—

Imports of Corn and Flour.

	Cwts.
1863	59,830,930
1864	47,016,557
1865	49,489,188
1866	62,943,385
1867	66,016,690
1868	66,981,153
1869	79,914,055

Not only therefore does the return for 1869 exceed that for 1868 by more than 19 per cent., but surpasses that for the highest previous year (1867) by more than 20 per cent.

We have already stated that we are indebted for our most liberal supply of wheat and wheat-meal to the United States, who have, in 1869, quite eclipsed their great competitor Russia in our wheat market, and forwarded to us more than one third of our whole supply.

The returns of the respective importations of wheat from Russia and the United States in the last five years may be interesting, as showing the fluctuations that have taken place.

Importations of Wheat.

Years.	From Russia.	From United States.
	Cwts.	Cwts.
1865	8,093,870	1,177,618
1866	8,937,199	635,239
1867	14,025,236	4,188,013
1868	10,053,617	5,908,149
1869	9,158,331	13,181,507

The vast increase here shown, amounting to 123 per cent., in the quantities of wheat brought from the United States, is owing to augmented importations from all the three divisions of American ports.

The largest increase, in proportion to the quantities sent, has been in the import from the Southern ports on the Atlantic, which has risen from 38,559 cwts. in 1868 to 373,437 cwts. in 1869.

The Northern ports on the Atlantic have sent us 9,734,122 cwts. as against 3,307,423 cwts. in 1868, an increase of 194 per cent.; and the ports on the Pacific, mostly in California, which has of late years become a corn-exporting country to a considerable extent, have sent us 3,073,948 cwts. instead of 2,562,167 cwts. only.

In addition to these large quantities, we have received the following ample supplies of wheat from other countries; viz.:—

	Cwts.
From Prussia - - -	4,635,111
,, British North America -	2,723,053
,, Turkey, Wallachia, and Moldavia - - -	2,361,878
,, Illyria, Croatia, and Dalmatia	1,030,563 and
,, Egypt - - -	1,004,479

The importations of wheat-flour have increased at a still more rapid rate than those of wheat; viz., from 3,093,022 cwts. in 1868 to 5,401,555 cwts. in 1869, an increase of 74·6 per cent.

The largest supply (1,711,000 cwts.) has again been received from the United States, though the quantity sent to us from France (1,348,061 cwts.) approaches very nearly to the same amount.

The quantities of other sorts of corn have also risen simultaneously—

	Cwts.
From -	31,211,670 in 1868
To -	36,802,762 in 1869,

the largest increase (nearly 54 per cent.) being in Indian corn or maize.

Sugar refined.—The very large increase in the quantities of refined sugar imported requires a few observations:—

In the 10 years before the great reduction of duty, (from 18*s.* 4*d.* to 12*s.* 10*d.* per cwt.), which took place in May 1864, the importation of refined sugar had fallen from 400,000 cwts. (in round numbers) to less than 300,000 cwts. In 1863 the international conferences, to which we have often referred in these reports, were held in Paris on the question of sugar duties and drawbacks, and the laws of the respective countries represented at those conferences, became better and more generally known. The fact that the French and Dutch refiners were thus made aware of the great advantage they derived from the bounties then granted to them, on the exportation from their own country of their refined sugar, coupled with the reduction of duty here, gave a great stimulus to the importation of refined sugar into this country; and consequently in 1864 the quantities brought suddenly sprang up to nearly 950,000 cwts.

In the course of that year, however, the convention was agreed to, by which the bounties in France and Holland were very considerably reduced and nearly extinguished. This again checked the importation into this country, and the returns for 1865 showed a falling off in the importations of 13 per cent., and those for 1866 a decrease again of 19 per cent.

Stocks having now become low in this country, and the foreign refiners being anxious to take advantage of the last remnants of the bounty system, which, in consequence of the results of the experiments at Cologne, was just about to be abolished in accordance with the terms of the International Treaty, the quantities imported in the early part of 1867 were very considerable, and showed an increase from 660,000 cwts. to 830,000 cwts., or 26 per cent.

This was followed, in the succeeding year (1868) by a fresh decline, though only to the extent of 13 per cent., leaving the quantities nearly 730,000 cwts., an amount still almost double that imported in any year between 1855 and 1864. In consequence, however, of this falling off in the quantities imported in 1868, the stocks in hand in the bonding warehouses at the close of that year were reduced from 105,000 cwts. (at the close of 1867) to 60,000 cwts. only; and it is principally to this fact that we believe is owing the unprecedently large importation of refined sugar in 1869 (viz., 1,068,940 cwts.),

and not to any defect in the adjustment of the scale of duties prejudicial to our British refiners.

Appendix V.

Tobacco.—For the details of the supply of unmanufactured tobacco we must refer as usual to Appendix V., a return which we have often carefully analyzed in former reports.

Thirteenth Report, p. 26.

We remarked last year upon the short supply of this article brought from the United States, which had fallen from 37,547,166 lbs. in 1867 to 28,681,443 lbs. in 1868; and we ventured to predict an augmented importation of the "stemmed" variety, commonly called "Western strips," owing to the stock in hand in this country being so very much reduced.

The year 1869 has not only brought us an increase in stemmed tobacco generally, from 13,612,823 lbs. to 26,650,875 lbs., a rise of nearly 100 per cent., but has also raised the supply of both stemmed and unstemmed from the United States from 28,681,443 lbs. to 37,046,032 lbs., a rise of 29 per cent., owing in a great measure to the increased importation of these "Western strips."

On the other hand, the import of tobacco from all other countries continues to fall off, as it did in 1868 and 1867, and has now reached the lowest point it has ever occupied since 1860, the year before the American War began.

The quantities for 1860, 1861, and for the last four years, are as follows:

Quantities of unmanufactured tobacco imported from all countries, except the United States:—

	lbs.
1860	8,452,066
1861	17,047,260
1866	25,053,903
1867	20,039,121
1868	19,013,006
1869	15,542,558

This decline naturally reduces the total importations of this article in 1869, which, though larger than those of 1868 by 4,900,000 lbs. nearly or $10\frac{1}{4}$ per cent., still fall short of those in any of the four preceding years 1864, 1865, 1866, and 1867.

The countries, other than the United States, that show the greatest falling off, on a comparison of 1869 with 1868, are the Philippine Islands, Turkey, and New Granada.

This was, however, to be expected from the largely increased shipments from those three countries in 1868, as remarked on in our last report. The supply on the other hand from the Hanse Towns of their surplus stock of tobacco, which fell off greatly in 1868, has increased to more than double the quantity sent in that year. And in the same way the decrease in the importations from Japan, also mentioned last year, has been converted into a large increase.

Thirteenth Report, pp. 26 and 27.

The comparative figures for these five countries, are as follows :—

QUANTITIES of UNMANUFACTURED TOBACCO IMPORTED.

Countries.	1868.	1869.	Increase.	Decrease.
	lbs.	lbs.	lbs.	lbs.
Philippine Islands	3,499,768	1,334,718	—	2,165,050
Turkey	3,502,956	1,752,587	—	1,750,369
New Granada	2,287,415	1,872,765	—	414,650
Hanse Towns	648,203	1,456,623	808,220	—
Japan	212,329	574,339	362,010	—

Wine.—The following is the comparative return for wine, showing the quantities brought from the three principal countries of its production in 1868 and 1869 :—

Countries.		1868.	1869.	Increase per cent.	Decrease per cent.
		Galls.	Galls.		
France	Red	3,468,859	2,984,698	—	14
	White	1,276,581	1,270,766	—	·45
	Total	4,745,440	4,255,464	—	10
Portugal		2,965,846	3,262,882	10	—
Spain	Red	949,970	1,201,590	26	—
	White	6,381,892	6,490,553	1·7	—
	Total	7,331,862	7,692,143	4·9	—

The year 1869 is the first since 1863, which shows a decrease in the quantities of wine imported from France. There is nothing, however, surprising in this, when we remember that 1868 showed an increase over 1867 of 28 per cent. in her red wine, and 18 per cent. in her white. Both kinds have fallen off in the past year, the principal deficiency being in the red wine. On the other hand, Portugal appears to be fast recovering the ground lost in 1867 and 1868, and shows a substantial increase in the quantities of 10 per cent. This, however, does not yet bring up the importations from that country to an equality with those of 1866, though it goes far to weaken the arguments advanced of late years in favour of further concessions, by a reduction of duties, being made to her by treaty.

Thirteenth Report, p. 24.

Spain still remains the country from which we receive the largest supplies of wine; and in 1869 the quantities of Spanish wine have equalled those of both France and Portugal combined; indeed they are higher than those brought in any previous year but 1864, (when we recorded an importation of 7,791,025 galls.), the principal advance being in the red wine, which has risen, since 1864, from 709,854 gallons to 1,201,590 gallons in 1869, as shown in the above table. This wine is intended and mostly used as a substitute for port, though some of it goes in the trade by the name of Spanish claret.

The trade in Cape wine and Madeira appears to be slightly and slowly recovering, and an increase also appears in 1869 in the quantities brought from Hamburg and Holland.

Wool.—The increase in the quantities of wool imported is very inconsiderable, but extends to the produce of all the principal wool-growing countries, with the exception of the British Possessions in South Africa, the import from which has fallen from 35,993,572 lbs. in 1868 to 34,307,882 in 1869.

Australia, as usual, sends us more than $\frac{3}{5}$ths of our whole supply, the quantities in 1869 having reached, as already stated, the vast amount of 158,477,960 lbs.

Page 26. Decreases.

Turning now to Table II. we find that the most important falling off, in 1869, has been in the quantities of silk imported. Although in our returns the deficiency appears to have arisen in the importations from Egypt, the principal falling off is really in the supply from China, (Egypt representing only the country of transit from

India, China, and Japan), which disappointed the expectations of all interested in the trade in this country, and, as we are informed, produced frequent fluctuations of price in the silk market.*

Coffee.—The falling off in coffee is too inconsiderable to require any special remark, especially as we had to record a very large increase last year, and the stocks in bond at the close of 1868 were unusually large. The decrease has been entirely in the produce of our own colonies, the imports of foreign coffee showing an increase.

Cotton.—The quantities of cotton imported (as will be seen in Table II.), have fallen off from 11,857,893 cwts. in 1868 to 10,900,088 cwts. in 1869, a decrease of 954,080 cwts., or 8 per cent.

The return for 1868 showed, however, an increase on that for 1867 of 585,242 cwts., or 5 per cent., while the supply in 1867 again fell short of that in 1866 by 1,023,152 cwts., or 8 per cent.

The whole decrease in 1869 is attributable to the diminished import from the United States, the falling off in which amounts to 1,045,409 cwts., for, though there is also a decrease, giving round numbers only, in the imports from—

Brazil, of	173,000
British India	110,000
Peru	36,000
British West Indies	9,000

with several other minor deficiencies, yet, on the other hand, an increased supply over that in 1868 has been sent us by—

Egypt, of	280,000 cwts.
Turkey	75,000 ,,
New Granada	30,000 ,,
Africa	12,000 ,,
Chili	10,000 ,,
Foreign West Indies	9,000 ,,
Australia	5,000 ,,
Bermudas	3,000 ,,

We gave in our last report a comparative statement of the quantities of cotton imported from the United States in every year since 1860, the last year before the commencement of the war in America. We also gave our

Thirteenth Report, p. 22.

* Messrs. Durant & Co.'s Circular. Economist, 12th March, 1870.

reasons for not anticipating any great increase in these quantities for 1869. The result of last year's operations, as given above, shows that we underrated the effect that was likely to be produced upon the production and shipment of cotton from America by the disorganized condition of the Southern States. The high prices, however, that have been obtained for cotton by the planters during the last two years, will probably tend to encourage further production, while the requisite amount of labour will not be wanting if the wholesale immigration of negroes from the more Northern into the Gulf States, which we are informed is in progress, continues at its present rate.*

For the present, however, the United States must be content again to return to the second place on the list of the countries who supply us with cotton. After the almost entire cessation of their shipments in the years 1862, 1863, and 1864, during which time the supply from other countries, and especially from British India, was stimulated to the greatest extent, the recovery in the production of cotton in the States was so rapid in the three succeeding years that in 1867 and 1868, they actually regained the most important place in the return of countries from whom our supply is derived. The quantities brought from the United States and from British India, their only really formidable rival, respectively during those years were as follows:—

Reports 12 and 13. Appendix H.

IMPORTS of COTTON.

Year.	From United States.	From British India.
	Cwts.	Cwts.
1860	9,963,309	1,822,689
1861	7,316,969	3,295,004
1862	120,752	3,505,844
1863	57,690	3,878,757
1864	126,322	4,522,566
1865	1,212,790	3,981,675
1866	4,643,370	5,493,770
1867	4,715,733	4,449,259
1868	5,128,971	4,408,095
1869	4,083,562	4,298,012

It may be interesting to look at the imports from Brazil and Egypt, both before and after the commencement of the war in America in 1861, and down to the present time; they have been as follows:—

*Report of the General in command of the Gulf States, given in "New York Tribune," and copied by the "Pall Mall Gazette."

QUANTITIES of COTTON imported (stated in round numbers only).

Year.	From Egypt.	From Brazil.
	Cwts.	Cwts.
1858	341,000	166,000
1859	336,000	201,000
1860	392,000	154,000
1861	365,000	154,000
1862	527,000	208,000
1863	835,000	202,000
1864	1,120,000	339,000
1865	1,579,000	495,000
1866	1,056,000	612,000
1867	1,128,000	629,000
1868	1,153,000	882,000
1869	1,433,000	709,000

From this return it appears that no very decided impetus was communicated to the growth of cotton in either country till 1862, when the effects of the war upon the cotton crop in the United States began to be severely felt; that from that time the imports from both countries into the United Kingdom have continued steadily to progress; in the case of Brazil, without a single break till the last year 1869, and in the case of Egypt, with one break only (in 1866) caused by an excessive importation in the preceding year.

We further observe that the supply of cotton we at present derive from these countries respectively, is, in the case of Egypt, more than treble what she sent us in 1860, and in the case of Brazil, more than four times that amount.

Flax.—There has been a falling off of 15 per cent. in the imported quantities of this article, owing principally to the very inferior crop in almost all the flax growing countries in 1868, both as to yield and quality, a fact that by artificially raising prices and reducing manufacture, naturally ended in discouraging importation during a large portion of the last year.

The rise in Table I. in the quantities of hemp is in some measure owing to the substitution of this article for flax in manufacture, owing to the unsatisfactory character of the supplies of flax.* Page 28.

* Messrs. Armistead (Dundee), Circular, Economist, 12th March 1870.

Spirits.—The following table shows the quantities of the different sorts of spirits imported :—

——	1868.	1869.	Increase per cent.	Decrease per cent.
	Galls.	Galls.		
Rum - - - -	7,035,033	5,232,321	—	25·6
Brandy - - - -	4,062,885	3,937,269	—	3·
Geneva - - - -	246,710	281,813	14·2	—
Other Sorts (not sweetened or mixed) - - -	1,486,635	1,940,103	30·5	—
Total - -	12,831,263	11,391,506	—	11·2

It will be seen that the decrease has been entirely in rum and brandy, the quantities of which amount to $\frac{9}{11}$ths of the whole quantity of spirits imported, while the increase is in the more limited importations of Geneva and other plain spirits.

The falling off in the importation of rum, which is very considerable (amounting to 1,800,000 gallons) may be partly accounted for on the same grounds as the decrease in the supply of sugar unrefined from the West Indies and Mauritius, to which we shall again refer, and partly by the fact that the quantities imported in 1868 exceeded those in 1867 by nearly 200,000 gallons, while at the same time the consumption fell off by 350,000 gallons (in round numbers), and a larger stock than usual consequently remained in the bonding warehouses at the close of that year.

The quantities of brandy imported have been falling off during the three past years, as recorded in previous reports. The present decrease forms but a small per-centage on the quantities imported. The heavy stocks in bond have also, as in the case of rum, had a tendency to discourage importation.

Sugar, unrefined.—The decline in the quantities of this article is also owing in a great measure to the very large importation of 1868, which left a larger stock in bond than usual at the close of the year.

The falling off in 1869, however, has been principally in the sugar from the West Indies (falling under classes 2 and 3), and in all classes from the Mauritius, and this has been owing to a deficient crop in those countries, in consequence of excessive drought; the insurrection in Cuba has also had the effect of slightly reducing the supply from that country. As a general rule the 2nd

and 3rd classes show a considerable decrease, while the quantities in the 1st and 4th classes at the same time have increased. Molasses also show a considerable increase.

The detailed statement is as follows :—

——	1868.	1869.	Increase per cent.	Decrease per cent.
	Cwts.	Cwts.		
Sugar, unrefined, 1st class -	70,277	143,521	104	—
„ „ 2nd „ -	3,448,268	2,157,542	—	37·4
„ „ 3rd „ -	3,737,655	2,746,280	—	26·5
„ „ 4th „ -	4,539,961	5,994,080	32	—
Total sugar unrefined -	11,796,161	11,041,423	—	6·4
Molasses - - -	846,464	951,730	12·4	—

Tea.—It is not surprising that we should have to record the importation of diminished quantities of tea in 1869, after the extraordinary and unprecedented weight of that article brought to this country in 1868. As a natural consequence of the importation of 154,000,000 lbs., (a quantity that exceeded by 15,000,000 lbs. the import of the highest previous year 1866), and of a diminished consumption in 1868, as compared with 1867, the stocks in hand at the close of 1868 were, (notwithstanding an augmented rate of export), raised from 84,000,000 lbs. to 96,000,000 lbs. The result has been the decline exhibited in Table II. The tea season, as known in China and Japan, commences in the month of May, and from the trade circulars which adopt this division of the year we find the shipment from those countries to England in the season 1868–69 reached 145,000,000 lbs. and that from India 10,000,000 lbs. In these large quantities, however, we are told the cargoes of ships lost are included, and also the quantities (amounting to 4,000,.000 lbs.) that went ultimately to the continent of Europe, being brought in vessels that only called at Falmouth for orders.*

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In Appendix P., No. 1., we find recorded as usual the quantity brought into the port of London, and the proportion it bears to the total quantity imported; it will be seen that this per-centage is higher than in any previous

Appendix P., No. 1.

* Report of J. C. Sillar & Co. Economist, 12th March 1870.

year. Out of 139,223,298 lbs. brought into this country no less than 138,151,202 lbs. came into the port of London, being 99·23 per cent.; 1,019,241 lbs. were imported into Liverpool, or ·73 per cent. of the whole import; and 52,855 lbs., or ·04 per cent. into the other outports of the United Kingdom.

Timber and wood goods.—The repeal of the duties on these articles in May 1866 produced but little effect in encouraging their importation at the time.

Indeed the quantities brought to this country in 1867 actually declined as compared with those brought in 1866. This was undoubtedly owing to the great depression existing in the building trades after the commercial crisis of 1866. The returns for the year 1868, however, presented a complete recovery, the quantities imported having exceeded those brought in either of the preceding years. The confidence of the trade not being even now completely restored, it is but natural that in 1869 there should be again a falling off. The decrease, however, is not very considerable, and leaves the quantities both of sawn and hewn wood imported still larger than they were in 1867.

The following table will give the particulars:—

Importations of Timber and Wood.

———	1866.	1867.	1868.	1869.
Sawn and split - loads	2,188,974	2,177,549	2,417,411	2,329,962
Hewn - - „	1,449,370	1,211,042	1,326,425	1,275,447
Staves - - „	89,419	62,621	61,117	60,450
Total - -	3,727,763	3,451,212	3,804,953	3,665,859

Page 28.

showing a decrease, as stated in Table II., below the return for 1868 of 3·6 per cent., but an increase over that for 1867 of 6 per cent.

Home Consumption Quantities. Thirteenth Report, p. 28.

For the same reasons as were given in our report of last year, which we have further explained in the first paragraph of this report, we are unable to show a very satisfactory return of increases in the consumption of the principal articles in general use.

The following table will present a very similar result to that given last year.

QUANTITIES of principal Articles entered for Home Consumption in 1868 and 1869, showing those in which there has been an Increase and in which a Decrease in 1869 as compared with 1868. Increase and decrease.

ARTICLES.	1868.	1869.	Increase per cent.	Decrease per cent.
Cocoa - - - lbs.	5,729,946	6,564,216	14·5	—
Coffee - - - „	30,608,237	29,109,113	—	4·8
Currants - - - cwts.	791,826	803,535	1·4	—
Raisins - - - „	361,639	353,175	—	2·3
Spirits :—				
Rum - - - galls.	3,950,773	3,769,649	—	4·5
Brandy - - „	3,320,388	3,267,331	—	1·6
Geneva - - „	135,128	138,579	·5	—
Other sorts (not sweetened). „	960,438	965,554	2·5	—
Total of spirits -	8,366,727	8,141,113	—	2·7
Sugar:—				
Unrefined - - cwts.	11,140,569	11,188,081	·4	—
Refined - - „	752,255	1,025,929	36·3	—
Total of sugar -	11,892,824	12,214,010	2·7	—
Tea - - - lbs.	106,918,069	111,887,458	4·6	—
Tobacco :—				
Unmanufactured - „	40,363,411	40,833,585	1·1	—
Manufactured - „	916,594	885,915	—	3·3
Total of tobacco -	41,280,005	41,719,500	1·06	—
Wine :—				
Red - - galls.	7,192,037	6,727,994	—	6·4
White - - „	7,959,651	8,112,164	1·9	—
Total of wine -	15,151,688	14,840,158	—	2·1

Last year we reported a decrease in tea, sugar, and coffee.

We have now to record a falling off in coffee, raisins, spirits and wine. This leaves us six articles out of 10 (reckoning sugar refined and unrefined as distinct articles), which show an increase in the quantities consumed. The 11th article usually taken (viz., corn and flour) has been left out of this table, now that it has become finally free of duty, and no returns of consumption can be obtained. There is no doubt, however, that the increased con-

sumption of this article has been very great, and this fact must be reckoned as a set off against the diminution that has taken place in the consumption of the articles above mentioned. Two of these very articles also, spirits and wine, can hardly be looked upon as so sure a criterion of the well doing of the labouring classes as others upon which an increase of consumption is to be found, such as tea, currants, sugar, and tobacco.

We cannot therefore, although the per-centage rate of increase is not large in any case, consider the return, taken as a whole, as unsatisfactory, but rather look at it as affording a proof of a gradual revival of the trade and of the consuming powers of the country, a result which we trust we shall be able in our next report to state has been more fully realized.

By far the largest increase is that in refined sugar, which amounts, as shown by the table, to 36 per cent.

Thirteenth Report, p. 29.

The consumption of tea fell off in 1868 as compared with 1867, as mentioned in our last Report, from 111,059,387 lbs. to 106,918,069 lbs. a decrease of 4 per cent.

It has again advanced in 1869 to 111,887,458 lbs. (an increase of 4·6 per cent.) being the highest point it has ever yet attained.

Appendix P., No. 2.

Duty was paid in London on 76,858,474 lbs. or 68·69 per cent. of the whole quantity consumed, being more than was ever before required for consumption in the metropolitan district, or for removal to other parts of the country by railway duty paid.

Tobacco shows a small increase in the consumption of the leaf, and a falling off in that of the manufactured article, as will be seen by the following return : —

Quantities of Manufactured Tobacco and Snuff entered for Home Consumption.

1866.	1867.	1868.	1869.
Lbs.	Lbs.	Lbs.	Lbs.
881,399	938,844	916,594	885,915

We are, however, more inclined to attribute this decline (which only amounts to 3·3 per cent., and is accompanied

by an increase in the consumption of the unmanufactured article) to the more general use of British manufactured tobacco and cigars than to any material increase in the contraband trade. We are, however, perfectly aware that the utmost vigilance on the part of our officers is necessary to protect the revenue from the constant attempts to conceal manufactured tobacco in packages of free goods; a risk that is enhanced exactly in proportion to the number of articles from time to time made free of duty, and consequently relieved, to a great extent, from strict examination.

The following is the return showing the quantities of wine entered for home consumption under each class of duty; and having, from want of space, omitted it last year we now give the comparison of 1868 and 1869:—

		1868.	1869.
		Gallons.	Gallons.
Red Wine	In casks under 26 degrees	3,006,365	2,548,117
	„ „ 42 „	3,802,561	3,763,224
	In bottles „ 26 „	355,120	387,969
	„ „ 42 „	26,849	27,105
	In casks or bottles, 42 degrees and upwards	1,142	1,579
	Total	7,192,037	6,727,994
White Wine.	In casks under 26 degrees	357,792	357,421
	„ „ 42 „	6,315,247	6,445,865
	In bottles „ 26 „	1,252,814	1,279,300
	„ „ 42 „	23,808	19,304
	In casks or bottles, 42 degrees and upwards	9,990	10,274
	Total	7,959,651	8,112,164
	Grand Total of all wine	15,151,688	14,840,158

The largest falling off is evidently in the red wine in cask, under 26 degrees, and this has arisen principally in French red wines,—clarets,—the consumption of which is less than it was in 1868 by more than 400,000 gallons. The consumption of port also, unlike the import which we have already stated to have risen considerably, has fallen off by about 30,000 gallons. The two classes, on the other hand, under which the bulk of the white wine

is imported, show an increase in 1869, and the only exceptions are the lighter white wines in cask, (principally French and German), and the wines in bottle under 42 degrees, the consumption of which has slightly decreased, as compared with 1868.

Comparing the use of the stronger and the lighter wines we find that, roughly stated, more than 10 million out of 15 million gallons of wines consumed in the year, or two thirds of the whole quantity, are still of the higher strength, and consequently liable to the higher rate of duty.

The falling off in spirits is but trifling, and may to a great extent be accounted for by an increase of 600,000 gallons in the quantities of British spirits retained for home consumption in 1869, as stated in the Inland Revenue Returns.

REVENUE.

Appendices E. and F.

The comparative account of the gross and net revenue, collected in the years 1868 and 1869, is given in Appendices E. and F., which also distinguish the amounts received upon each article of importance; we will first state here the general result:—

	1868.	1869.	Increase.	Decrease.
	£	£	£	£
Aggregate Gross Receipt of Customs Duties - -	22,693,507	22,229,748	—	463,759
Deduct Drawbacks and Repayments - -	281,724	317,528	35,804	—
Aggregate Net Receipt -	22,411,783	21,912,220	—	499,563

The whole of this deficiency of nearly 500,000*l.* is accounted for by the abolition of the small remaining duty on corn and other cereals in June of last year. If we turn to Appendix T., we shall see that the estimated amount of duties lost by this abolition for the whole year was 864,436*l.*, calculated upon the receipt of the previous year.

Appendix D.

Appendix T.

The proportion of this sum, that would be sacrificed in seven months from the 1st of June to the close of the year, would therefore clearly be 504,254*l.*

In the same way the estimated loss by the alterations of the duties on beer, ale, and spruce, is 1,137*l.*, $\frac{7}{12}$ths of

which sum would be 663*l.*, which added to 504,254*l.*, makes a total of 504,917*l.*

The result, however, of the year's experience shows that the loss on corn has been considerably larger than the estimate thus made, owing, no doubt, to the duties having been withheld in the early part of the year in anticipation of their repeal. The actual loss we see from Appendix E. has been 524,750*l.* Appendix E.

On the other hand, we find from a comparison of the 1st supplement to Appendix E., with the same return for 1868, that the operation of the duties on beer and spruce has resulted in a small gain, instead of a loss, in the seven months, amounting to 472*l.* Appendix D., 1st Supplement to Appendix E. and 13th Report, page 78.

The statement, therefore, of our usual balance sheet for the year will stand thus; the figures being taken from the actual results given in Appendix E. and Supplements 1. and 2., and not from the estimate in Appendix T.

	£	
Net revenue for 1868 - -	22,411,783	Appendix E.
Deduct actual loss of duty on corn (duty repealed, 1st June) - -	524,750	Appendix E.
Deduct actual loss on other bread stuffs (duty repealed, 1st June) -	5,258	1st Supplement to Appendix E.
Total loss - -	530,008	
	21,881,775	
Add actual increase by alteration of duty on beer - - -	472	1st Supplement to Appendix E.
Estimated net revenue for 1869 -	21,882,247	
Add gain by increase of consumption	29,973	
Actual net receipt (1869) - -	£21,912,220	

This shows that the gain by increased consumption in the year has been 29,973*l.*, and that, had the duties remained unaltered, we should probably have shown a much larger excess than this over the revenue of 1868, in consequence of the increased consumption of corn arising from the fall in price already alluded to. Page 1.

Thirteenth Report, pp. 31 and 32.

2nd Supplement to Appendix E.

We last year spoke of the excess that had taken place in the payments out of revenue for drawback, almost entirely on sugar, in 1868, as compared with 1867, which then amounted to 32,216*l.* These payments have again increased in 1869, and the excess over those made in 1868 is 35,804*l.*

Cost of collection.

Appendix G.

Appendix G. gives the usual calculation of the cost of collection for the financial years ending 31st March 1868 and 1869 respectively, and shows that there has been a trifling increase in the latter year, and that it now stands almost precisely at the same rate as it did in 1866–7, namely, a charge of 3*l.* 6*s.* 3*d.* per cent. on the gross receipt, and 3*l.* 7*s.* 1*d.* per cent. on the net produce.

Fluctuations of trade at different ports. Appendices B. and C.

The following is the abstract taken from Appendix B. showing the distribution of the gross Customs Revenue among the different ports in the United Kingdom, exclusive of the Isle of Man:

Ports.	1868.	1869.	Increase.	Decrease.
	£	£	£	£
London - - - -	10,694,494	10,484,555	—	209,939
Liverpool - - - -	3,079,566	3,158,300	78,734	—
All other Ports of England - -	3,347,186	3,413,027	65,841	—
Scotland - - -	3,436,308	3,073,045	—	363,263
Ireland - - - -	2,135,953	2,095,276	—	40,677
Total - - -	22,693,507	22,224,203	144,575	613,879
Deduct Decrease - -	- -	- -	- -	144,575
Decrease - -	- -	- -	- -	469,304

The largest deficiency is in the revenue collected in the Scotch ports; next to this is the falling off in London, the largest that has been experienced at that port since the year 1866, when the abolition of the timber duties, and the reduction of the tea duties in June 1865, contributed to create the deficiency. Liverpool on the contrary presents us with a very satisfactory increase which is said to have arisen on the greater consumption of the articles of sugar and tobacco. The other ports in England have also improved their collective returns, while the Irish ports show a small falling off of about 2 per cent. on their revenue of 1868. London. Liverpool.

To go more into detail, out of 84 English ports (excluding London and Liverpool but including the Isle of Man) 35 show an increase and 49 a decrease. Other English ports.

The following tables will give all instances of increase or decrease at the English ports that amount to upwards of 2,000*l.*, with the reasons assigned by the collectors, in each case. Appendix C.

TABLE I.

Port.	Increase in Revenue.	Causes of Increase.
	£	
Bristol -	63,422	There is a large increase both on tobacco and sugar.
Grimsby -	39,441	The trade is steadily increasing.
Newcastle -	30,642	There is a considerable increase in the manufacture of tobacco.
Sunderland -	8,474	Two new manufactories of tobacco have been started.
Leeds - -	7,437	The trade of this town is steadily increasing.
Hull - -	6,645	Large importations of beetroot sugar have latterly taken place.
Yarmouth -	2,328	The trade of the port is steadily increasing.
Exeter -	2,095	Ditto ditto.
Southampton -	2,046	Ditto. ditto.

TABLE II.

Port.	Decrease in Revenue.	Causes of Decrease.
	£	
Plymouth -	25,928	Failure of a sugar refinery.
Gloucester -	20,477	Abolition of duty on corn.
Manchester -	8,487	Death of a tobacco merchant.
Hartlepool -	8,131	Abolition of duty on corn.
Chester -	7,818	Depressed state of trade.
Preston -	6,267	Ditto.
North Shields -	3,078	Ditto.
Dover - -	3,000	Messrs. Gaudet Frères having transferred their business to London.
Newhaven -	2,913	Abolition of duty on corn.
Stockton -	2,682	Ditto.
Bradford -	2,554	A tobacco manufacturer having given up business.
Goole - -	2,126	Abolition of the duty on corn.
Swansea -	2,076	Depressed state of trade.
Ipswich -	2,045	Abolition of the duty on corn.
Douglas -	2,015	Wines and spirits being removed duty paid from England.

Scotch ports.

Of the Scotch ports, 8 show an increase and 18 a decrease. Granton, which was only raised to the rank of a port in 1866, is the only port which shows an increase of any magnitude (3,000*l.*) caused by a general increase of trade. Six ports, on the other hand, show a considerable decrease:

Glasgow of 179,575*l.*, caused by the stoppage of a sugar refinery.

Greenock „ 104,042*l.*, owing to the refineries being partially closed in August and September for want of water.

Leith	- of 67,641*l.*,	caused by the abolition of the duty on corn.
Grangemouth	,, 4,960*l.*,	Do.
Aberdeen	-,, 2,968*l.*,	Do.
Arbroath	-,, 2,182*l.*,	owing to unusually large payments on tobacco in 1868.

Of the Irish ports, 6 show an increase and 13 a falling off. Irish ports.

Of the former, Cork has added the sum of 12,000*l.* to the increase shown in our last report in consequence of a steady advance in the trade of that city, and Limerick has more than made up the falling off recorded for 1868, having exceeded the receipt of that year by 6,900*l.*

The principal decreases are at the following places :—

Waterford	of 14,950*l.*	owing to tobacco having been removed duty paid from Dublin.
Londonderry	,, 13,918*l.*,	in consequence of duty having been paid on wines and spirits through the Inland Revenue Department.
Dublin	- ,, 12,225*l.*,	owing to smaller quantities of manufactured tobacco having been sent to England.
Belfast	- ,, 9,796*l.*,	owing to abolition of the duty on corn.

and

Sligo	- ,, 5,377*l.*,	principally on tobacco and grain.

The same Appendix B. which gives the abstract of the Customs Revenue returns at the different ports gives also the amount received by our officers on British spirits for the Inland Revenue Department in the years ending 31st December. British spirits. Appendix B.

The statement of the totals is as follows :—

Duty received on British Spirits.

1868.	1869.	Increase.
£	£	£
1,493,688	1,682,843	189,155

This is the largest increase in any year since 1866, and extends to every division of ports and to a very large majority of the ports themselves, those that show the largest individual addition to the receipts under this head being Dublin, Liverpool, Cork, and Glasgow. The Irish ports on the whole show a predominance in this respect, the duties paid to our officers on British spirits in Ireland having risen from 598,096*l.* to 671,812*l.* an increase of 73,716*l.*

On the other hand, the Customs receipts are apparently diminished at some Irish ports, and especially at Londonderry, from the storing of foreign wines and spirits in Inland Revenue warehouses, and the payment of the duties to us through that department.

We propose to refer again to this subject in a subsequent paragraph of this report.

Returns of Shipping. Appendices L., M., and N.

In Appendices L., M., and N., will be found the usual returns of shipping.

From Appendix L. it appears that the total tonnage of ships entered inwards and outwards at the ports of Great Britain has risen from 33,680,979 tons in 1868 to 34,910,281 tons in 1869, an increase of 1,229,302 tons.

The tonnage of British vessels has risen from 22,660,424 tons to 23,789,167 tons, an increase of 1,128,743 tons or 4·9 per cent. That of foreign vessels has not been so rapid, showing a rise from 11,020,555 tons to 11,121,114 tons, a difference of 100,559 or ·9 per cent.

Twelfth Report, p. 43. Thirteenth Report, p. 36.

The next Appendix (M.) shows plainly the still continued depression in the ship building trade which we have observed upon in our two last reports.

The total number of new vessels built and registered in the British Empire in 1869 has only been 1,682 as against 1848 in 1868, 2,180 in 1867, and 2,734 in 1866.

No improvement in freights has taken place during the past year. Indeed it contrasts unfavourably in this respect with 1868, and the depreciation of shipping property has become very serious. The opening of the Suez Canal will gradually displace from the trade a portion of our sailing vessels, increasing at the same time the number and size of our steam mercantile navy.

Many steamers of large size and light draft are already in course of construction for the purpose of taking advantage of this newly created opening for trade.

In the meantime, though the ship-building trade has been almost entirely removed from London, it continues active at some other ports in the United Kingdom and especially on the Clyde.*

The aggregate number and tonnage of registered vessels existing on the registry is given in Appendix N., and shows a similar decline; the comparative return for the four past years being as follows:

	Vessels.	Tons.	Men.
1866	40,912	7,297,984	346,799
1867	40,942	7,277,098	346,606
1868	40,341	7,236,916	340,516
1869	39,080	7,169,749	334,853

Decrease in 1869 as compared with 1868:

Vessels.	Tons.	Men.
1,261	67,167	5,663

The usual tables giving the statistics of trade for the port of London, do not present many features differing in any essential point from those given in former reports. They are as follows: LONDON.

TABLE I. Trade, &c., of.

NUMBER of Vessels arriving in the Port of London.

Vessels.	1868.	1869.	Increase.	Decrease.
Sailing vessels - -	7,877	7,477	—	400
Steamers - - -	3,528	3,997	469	—
Total - - -	11,405	11,474	69	—

The number of steamers has again increased, and the sailing vessels continue to fall off. Increased demands are in consequence continually arising upon the department for officers, each steamer as a rule requiring three out-door officers to guard her, while two, and occasionally only one, is sufficient for a sailing vessel.

* Messrs. Rucker, Offor, and Co.'s report. Economist, March 17, 1870.

Out-door department.

Duties of Officers.

Waterguard.

Table II.

Duties of the Waterguard Officers.

	1868.	1869.	Increase.	Decrease.
No. of officers boarded on vessels on arrival	17,494	16,736	—	758
Do. outwards	4,917	5,613	696	—
Do. on lighters and barges in the river	18,658	20,776	2,118	—
No. of nightly visits paid by superior officers to men boarded on vessels & lighters	13,828	13,854	26	—
No. of vessels rummaged at Gravesend	1,077	1,009	—	68
Do. which passed Gravesend unguarded for want of officers	1,991	2,669	678	—
No. of vessels rummaged by screw steamer "Vigilant" in the river	1,627	1,773	146	—
Amount paid by merchants to officers for working at night	£458	£658	£200	—

Waterside.

Table III.

Duties of the Waterside Officers.

	1868.	1869.	Increase.	Decrease.
Number of packages reweighed and repacked in bonded warehouses	568,000	540,000	—	28,000
Number of packages of drawback and bonded goods shipped for exportation by the searchers	3,588,600	3,771,022	182,422	—
Number of packages of sugar sampled for assessment	1,542,759	1,849,846	307,087	—
Number of samples of sugar assessed for duty	271,111	259,615	—	11,496
Number of packages of refined sugar crushed and packed for exportation at the refineries	20,698	21,372	674	—
Weight of do. - cwts.	35,053	37,106	2,153	—

Passenger Traffic.

Table IV.

Passenger Traffic.

	1868.		1869.	
	Passengers.	Packages.	Passengers.	Packages.
Examined at Thames Haven	2,092	4,319	1,469	2,980
On board steamers coming up the river	36,090	68,566	33,984	68,890
At Gravesend	730	1,740	838	1,896
At the various docks and wharves	5,964	38,856	4,696	40,417
At Charing Cross and Victoria Railway Stations	57,235	87,792	60,536	96,684
Total	102,101	201,273	101,523	210,867

We subjoin to these tables the following few observations.

The decrease in the number of officers boarded on vessels on arrival, is accounted for by the increased number boarded on vessels outwards, with drawback or bonded goods on board.

We were able to add considerably to the number of officers boarded on lighters in the river in 1869, in consequence of your Lordships' sanction having been given for the employment of 60 extra out-door officers on this duty. In order, however, that the strictest economy might be preserved, every reasonable pressure has been put on the existing establishment, and only 40 of these new extra men have at present been employed. They consist chiefly of pensioners from the army, navy, and coastguard; and we are happy to report that the duty entrusted to them has been discharged in a satisfactory manner.

There is an increase of 678 in the number of vessels which passed Gravesend unguarded. This has arisen from the addition to the number of steamers arriving in the port as already mentioned, in the protection of which more officers are absorbed, and fewer are consequently left to be boarded on the sailing vessels. Although, however, the number of unguarded vessels bears a large proportion to the total arrivals, there is no reason to suppose that the revenue has sustained any loss; indeed the risk incurred has been reduced to a minimum by the vigilance of the officers generally, aided, in the protection of the revenue, by the employment of the steam cruiser in the river already referred to in former reports.

The force stationed at Gravesend has however been increased by sending thither officers from London, whose places will again be supplied, by employing the whole number of extra men sanctioned by your Lordships, if it should become necessary to do so.

The amount paid by merchants for officers working at night has again increased during the past year. We have in previous reports expressed our opinion that the system is in many respects objectionable, and we do our utmost to limit the number of cases in which the indulgence is allowed.

The number of foreign animals landed in London and Thames Haven, and inspected by our veterinary inspectors

Importation of cattle, &c.

during the past year, has been very much in excess of those brought in 1868.

The following is the account:

Into London.

TABLE V.

IMPORTATION of Cattle, &c. in the year 1869.

Landed at the London Wharves.

From whence.	Beasts.	Calves.	Sheep.	Pigs.	Total Animals.
Holland	8,195	1,934	190,095	7,143	207,367
Belgium	9,889	1,657	64,032	2,283	77,861
Germany	14,413	101	80,340	4,485	99,339
Schleswig	20,182	4	28,997	—	49,183
France	7,746	68	5,668	4,498	17,980
Portugal	852	—	—	—	852
Spain	137	12	108	—	257
Total	61,414	3,776	369,240	18,409	452,839

Landed at Thames Haven.

From whence.	Beasts.	Calves.	Sheep.	Pigs.	Total Animals.
Denmark	1,955	—	800	—	2,755
Holland	22,219	20,829	28,387	2,441	73,876
Germany	30,429	147	13,408	—	43,984
France	1,318	231	—	1,057	2,606
Portugal	1,930	—	—	—	1,930
Spain	6,296	—	100	—	6,396
Sweden	2,931	187	490	72	3,680
Total	67,078	21,394	43,185	3,570	135,227
From above	61,414	3,776	369,240	18,409	452,839
Grand total	128,492	25,170	412,425	21,979	588,066

Out of the above, the following were detained and slaughtered:—

	Beasts.	Calves.	Sheep.	Pigs.	Total.
Slaughtered and meat passed as fit for human food in London	1,468	2	2,863	1,183	5,516
Do. do. at Thames Haven	773	63	1,953	123	2,912
Condemned and destroyed in London	7	7	263	7	284
Do. do. at Thames Haven	114	15	57	22	208
Total	2,362	87	5,136	1,335	8,920

The proportion per cent. that the animals slaughtered, on account of disease or injury, bore in 1869 to the whole number imported, was therefore as follows:—

Beasts.	Calves.	Sheep and Lambs.	Pigs.	Total Animals.
1·8 per cent.	·34 per cent.	1·2 per cent.	6 per cent.	1·5 per cent.

The proportion of beasts slaughtered to the whole number imported is larger than it was in 1868, and that of pigs, very much so. This is owing to the great prevalence of the foot and mouth disease, especially among the latter animals.

The proportion, however, of the total animals (taken in the aggregate) slaughtered, falls short of that stated in our last report, which was 1·9 per cent.

If we compare the numbers imported with those given last year, it will be seen that a great impetus has been given to the trade in animals by the discontinuance of some of the restrictions on their importation and movement which prevailed in preceding years.

By a reference to last year's report, we find the totals there given fall short in every instance of those just stated. This is the comparison :— Thirteenth Report, p. 40.

Number of Animals Imported into London.

Year.	Beasts.	Calves.	Sheep.	Pigs.	Totals.
1868 - -	83,144	17,559	208,161	11,369	320,233
1869 - -	128,492	25,170	412,425	21,979	588,066
Increase per cent. in 1869 - -	54	43	98	93	83

The large increase in the importation of sheep and pigs into London is the more remarkable, inasmuch as, owing to the appearance among them of the foot and mouth disease in the autumn months of the year, orders were issued by the Privy Council for the slaughter at the landing place of all cargoes containing any sheep or pigs so affected, a measure which, though naturally causing much pressure upon the officers, and inconvenience to the importers at the time, undoubtedly checked the introduction of infected animals into the country. Our veterinary inspectors now report that very little of this disease, lately so prevalent, exists on the continent at the present time. A peculiar feature of the trade of the year 1869, was, that in consequence of the high prices prevailing for meat in this country, a great importation took place quite

at the beginning of the year, a period at which, in previous years, the quantities brought had always been small, the great bulk of the animals generally arriving in the summer and autumn months.

Into United Kingdom. Appendix S.

Appendix S. gives the total number of live animals imported into the United Kingdom in the year 1869, distinguishing the classes of the animals, and showing the number imported at each cattle port.

Thirteenth Report, p. 41.

The abstract of the totals is as follows, and, for the sake of comparison, we at the same time repeat the return given last year, adding also the number for the year 1865.

Year.	Oxen and Bulls.	Cows.	Calves.	Sheep.	Lambs.	Swine and Hogs.	Aggregate of all kinds.
1865 -	188,326	39,202	55,743	894,524	19,646	132,943	1,330,384
1866 -	191,545	17,626	28,568	777,174	13,706	73,873	1,102,492
1867 -	138,336	17,999	21,613	532,316	7,400	48,079	765,743
1868 -	103,726	11,143	21,819	323,447	17,708	33,721	511,564
1869 -	167,577	23,097	29,516	691,472	18,371	69,067	999,100

By this return it appears that we may congratulate ourselves on a rapid, though not yet a complete, recovery, (as far as the supply of animal food from abroad is concerned,) from the depressing influences of the cattle plague and other diseases that have been prevalent of late years, and of the restrictions on importation consequent thereon. The aggregate number of animals has only fallen short of those brought in 1866 by 103,392, and has nearly doubled those brought in 1868.

The number of cows, calves, and lambs is greater than those imported in 1866, but that of oxen, sheep, and pigs still falls short of that year's return.

In no class, however, has the importation yet reached again the numbers brought in 1865, the year in which the cattle plague first made its appearance.

Of dead meat.

We annex the account we usually give of the quantities of dead meat, (distinguishing sorts), imported into the United Kingdom in the course of the last three years.

QUANTITIES of DEAD MEAT imported into the UNITED KINGDOM in each of the Years 1867, 1868, and 1869.

		1867.	1868.	1869.
Beef, salted - - - - -	Cwt.	195,797	240,577	214,955
„ fresh, or slightly salted - - -	„	50,970	4,543	14,268
Pork, salted - - - - -	„	142,831	144,378	165,944
„ fresh - - - - -	„	7,454	6,984	24,930
Meat, salted or fresh, not otherwise enumerated*	„	97,916	38,343	50,247
„ preserved otherwise than by salting -	„	15,539	20,118	32,214
Total - - - -		510,507	454,943	502,558

* Principally fresh mutton.

From this return it appears that notwithstanding the great increase in the importation of live animals in 1869, to which we have already referred, the supply of dead meat, which we might imagine would be only intended to make up for a deficiency in the supply of the live article, has also, stimulated by the high prices prevailing in this country, risen again above that sent in 1868, and shows an increase of no less than 47,000 cwts.

Approval of fresh premises for landing, &c.

We forbear, for the reasons given last year, from troubling your Lordships with the number and names of premises approved or re-approved, during the past year, in the Port of London, for the landing and warehousing of goods, and for the performance of the numerous operations allowed under bond.

It is sufficient to say that considerable additions have, as usual, been made to the list.

Millwall Docks.

We may mention that the business of the Millwall Dock Company, upon whose case we commented at some length last year, appears to be slightly increasing, as shown by the following comparative statement of the number and tonnage of ships discharged there in 1868 and 1869:—

	Vessels.	Tonnage.
From 14th March 1868, date of opening -	642	224,228
1869 - - - -	927	342,769

The bonding privileges however, conceded to these premises, have at present only been availed of to a very limited extent, and generally for temporary purposes.

In-door Departments.

We now come to the usual return of the business transacted in, and statistics of trade connected with, the various indoor departments in the Port of London.

Long Room.

The comparative statement of the business of the Long Room in the two last years, is as follows :—

	1868.	1869.	Increase.	Decrease.
Ships' reports - - -	11,333	11,427	94	—
Duty entries :— 1st branch - - Sugar, Tobacco, Wine, Spirits	335,582	329,816	—	5,766
2d branch - - Tea -	388,638	438,077	49,439	—
3d branch - Warehousing	58,003	58,067	64	—
3d branch - Free -	110,917	111,255	338	—
Total - - -	893,140	937,215	49,841	5,766
Bonds for exportation and removal	55,730	57,370	1,640	—
Total - - -	948,870	994,585	51,481	5,766
	£	£	£	£
Trinity lights - - -	75,165	76,634	1,469	—
Colonial - - -	946	1,030	84	—
Pilotage - - -	22,578	25,252	2,674	—
Total - - -	98,689	102,916	4,227	—

Searcher's office.

The searcher's department (in the Long Room) shows an increase in the amount of work performed there during the past year. The following is the return :—

	1868.	1869.
No. of entries of free goods exported -	158,793	168,146
" " goods exported from the warehouses as merchandize	48,310	49,351
" " as stores - - -	16,723	16,926
" " goods transhipped - -	8,873	10,305
" " Customs drawback -	2,334	2,358
" " Excise " -	10,964	11,042
" " goods transferred -	4,063	4,221
Total - -	250,060	262,349

an increase of 12,289 documents, or nearly 5 per cent.

Offices of controllers of Accounts.

Tea Department.

The business of the tea department still goes on increasing notwithstanding the falling off in the import of tea in 1869, as compared with 1868, which we have mentioned in a former page. It is unnecessary here to repeat from Appendix P. the record of quantities imported and entered for home consumption. It is worth noting, however, that the vast increase in consumption, which we have already noticed, has taken place, as far as it can be estimated by the entries past, principally in London and the adjacent districts.

Appendix P. No. 2.

The total additional quantity of tea consumed in 1869 in the United Kingdom has been 4,969,389 lbs., and out of this, the increase in the quantity duty paid in London has been 4,041,372 lbs., leaving only 928,017 lbs. as the increase of consumption for the rest of the United Kingdom.

The quantity of tea exported and removed coastwise from London has been 69,749,633 lbs. as against 67,765,637 lbs. in 1868, an increase of nearly 3 per cent.

As a natural consequence upon these facts, the number of documents prepared and issued from the tea department has risen from 544,472 in 1868 to 611,302 in 1869, an increase of 66,830 documents, as will be seen by the following return :—

Documents.	1868.	1869.
Number of duty paid warrants - -	388,647	438,097
Number of removals, exports, and stores -	60,149	66,555
Number of letters of advice written to outports - - - - - -	47,838	53,325
Number of certificates of arrival received -	47,838	53,325
Total - -	544,472	611,302

Legal Quays and Victoria Docks.

The following is the return for the department of the Legal quays and Victoria Docks:—

——	1868.	1869.
Number of ships	7,912	8,192
Increase in 1869	280 ships.	
Over entry certificates	873	949
Warehousing warrants	27,743	32,802
Home consumption warrants	143,078	148,311
Exports	35,616	38,719
Letters coastwise	6,343	6,663
Total	213,653	227,444
Increase in 1869	13,791 documents.	
Removals in bond	935	986
Bottlings	1,015	920
Vattings	591	591
Tobacco operations	1,736	1,542
Deposits of lime juice	19	9
Total	4,296	4,048
Decrease in 1869	248 operations.	

London Docks.

The business at the London Docks still continues slightly to decline. The establishment has been reduced by two clerks in the past year. The return is as follows:—

——	1868.	1869.
Deliveries for home consumption	94,478	90,671
„ exportation, stores and removals coastwise	29,269	27,796
„ removals to other warehouses in the port	1,252	1,328
Vattings of wines and spirits	1,490	1,359
Bottlings of ditto	1,511	1,512
Rackings of ditto	7,351	7,236
Fortifyings of wines	982	912
Letters of advice coastwise	7,038	6,923
Over entry certificates	1,598	1,475
Total	144,969	139,212

St. Katharine's Docks.

The business at these docks also shows a small decline for the first time during the last six years.

We annex the comparative return. The falling off is entirely accounted for by the large increase in 1868 over the return for 1867.

STATEMENT of BUSINESS performed at the St. Katharine Docks during the Year 1869, as compared with the Years 1864, 1865, 1866, 1867, and 1868.

	1864.	1865.	1866.	1867.	1868.	1869.
Entries for home consumption.	29,438	36,962	38,977	40,822	43,567	41,923
Exportation stores, &c. -	26,549	36,212	36,116	35,781	42,067	40,657
Removals - - -	281	274	290	308	419	297
Vattings - - -	229	425	327	251	319	202
Bottlings - - -	659	783	706	697	780	750
Fortifyings - - -	153	132	121	121	123	131
„ lemon juice -	—	—	—	—	185	86
Letters of advice - -	2,934	3,736	4,001	4,078	4,035	3,442
Over-entry certificates -	480	698	938	994	916	1,057
Rackings and fillings -	917	1,362	1,545	1,679	1,902	1,694
Total - -	61,640	80,584	83,021	84,731	94,313	90,239

Increase in 1865 over 1864 = 30· per cent.
„ 1866 „ 1865 = 3· „
„ 1867 „ 1866 = 2· „
„ 1868 „ 1867 = 11·3 „
Decrease 1869 under 1868 = 4·3 „

It will be seen that the number of instances in which lime and lemon juice have been fortified in bond has considerably fallen off. The figures given, however, only show the number of operations. The detail of these operations is as follows :—

216 casks of juice were fortified and bottled in bond.

1,736 cases were received from the outports, and 7,523 packages and 328 jars were exported or removed under bond to the outports, for shipment as stores, containing in the aggregate 26,943 gallons. This branch of the business, which was imposed upon us by the Board of Trade in 1867, occupies nearly the whole time of one clerk.

East and West India Docks.

The return from the East and West India Docks, the principal receptacle for the sugar trade of London, shows a slight falling off in the number of documents prepared, owing no doubt to the prevailing dulness in that trade during 1869.

The quantities, however, of dutiable articles warehoused at these docks has, as shown by the accompanying account furnished by the Dock Company, in the same period, increased.

We may add (though the subject has properly no reference to our report for 1869) that the discontinuance of the practice of reweighing sugar on delivery (announced in the budget of the current year), and subsequently

ordered by your Lordships, has already resulted in the reduction of the staff at this station by two hands.

The following are the figures usually given:—

An Account of the Number of Documents, &c., issued from the Controller of Accounts Department, East and West India Docks, in the years ended 31st December 1868 and 1869, viz.:—

Documents.	1868.	1869.
Home consumption	33,996	32,975
Coastwise	3,686	3,413
Exports	10,800	10,637
Over entries	4,593	3,485
Letters of advice	3,457	3,227
Total	56,532	53,737

	1868.	1869.
Ships and craft with warehoused goods	1,005	1,055
Vattings, exclusive of vattings to original ships	1,197	1,148
Casks of spirits drawn off from the vat, exclusive of vattings to original ships	21,642	17,111

Dutiable Articles warehoused at these Docks.

Imports.	1868.		1869.	
Coffee — Casks	28,303	109,149	24,795	128,267
Coffee — Packages	80,846		103,472	
Cocoa — Packages		22,442		18,182
Rum — Casks		36,440		29,581
Sugar — Casks	114,741	454,904	95,043	448,553
Sugar — Packages	340,163		353,510	
Molasses Casks		11,312		15,408
Total		634,247		639,991

Increase 5,744 packages in 1869.

Increase and diminution of the establishment.

London.

The only change made in the force employed in the London establishment in 1869 was caused by the abolition of an office of principal clerk in the department of the Controller of Accounts for the Legal Quays and Victoria Docks. Seven vacancies in established clerkships have been filled up by the appointment of writers during the year, under the authority of your Lordships in each case.

Outports.

Several reductions of establishment have been carried into effect at the outports during the past year.

The Chief Surveyor for tonnage at Liverpool having died in the month of May, we took into our consideration

the question whether it was still necessary to maintain a separate officer, of his rank and salary, (300*l.* per annum), at that port, or whether it might not be possible for the Principal Surveyor in London to undertake the examination of the measurement of vessels taken by the Liverpool officers, in the same manner as is done with respect to other ports; and having ascertained that this additional duty could be performed in the office in London, without rendering the necessary supervision less effectual, we recommended to your Lordships, and received your authority for, the abolition of the separate office at Liverpool accordingly. The only other change of much importance has been at the ports of Grimsby and Hartlepool. The rapid increase of the trade and business at the former port, to meet which several officers had for some time past been despatched from other ports to act in aid, made some considerable addition to the establishment necessary, while at the same time the abolition of the duties on corn, &c. rendered a reduction of strength at Hartlepool practicable. We therefore transferred, under your Lordships authority, all the officers but one made redundant at Hartlepool to the port of Grimsby, and were able to effect a small saving on the total arrangement.

The other reductions at the outports have been as follows:—

We have struck off the establishment—

At Boston	-	1 principal coast officer.
Coleraine	-	1 out-door officer.
Cork	- -	6 „ „
Deal	- -	1 „ „
Dublin	-	1 house porter.
Gloucester	-	1 out-door officer.
Goole	-	2 „ „
Grangemouth		1 examining officer.
Hayle	-	1 out-door officer.
Hull	- -	1 examining officer. 4 boatmen.
Jersey	-	1 controller, &c.
Limerick	-	3 out-door officers.
Llanelly	-	1 principal coast officer.
Londonderry	-	2 out-door officers.
Newry	-	2 „ „
Truro	- -	1 „ „

The additions to the establishment have been but two throughout the whole of the outports (with the excep-

tion of those above stated to have taken place at Grimsby); viz:—

1 principal coast officer at Piel in the port of Lancaster: and

1 assistant examining officer at Leeds.

Writers, however, have been placed on duty at several ports; in some cases in addition to, but in many in substitution for, clerks on the establishment, as vacancies have occurred.

The following is the list:

Writers placed on duty in 1869.

2 at Bristol.
1 „ Dover.
1 „ Dumfries.
8 „ Glasgow.
1 „ Greenock.
2 „ Grimsby.
4 „ Leith.
2 „ Newcastle.
1 „ Newhaven.
1 „ South Shields.

General Questions.

A few questions of general interest have arisen during the past year, which we think it will be as well briefly to mention.

Warehousing of foreign wines and spirits in excise warehouses.

The first and most important is the concession made by your Lordships to the wine and spirit trades, and confirmed by the Act 32 and 33 Victoria, cap. 103, whereby they were allowed to bond foreign wines and spirits in excise general warehouses throughout the country.

It is unnecessary to recapitulate here the regulations which were drawn up by us, in concert with the Board of Inland Revenue, for the purpose of providing for the security of the revenue during the removal (for the first time) of these foreign goods out of the control of the customs officers, for the collection of the proper duties thereon by the officers of excise, and the transfer of those duties to the account of this department. It will, we think, be sufficient to say that the privilege thus granted to the trade, amounts, as regards these articles of wines and spirits, to a large extension of the permission to bond foreign goods in inland towns (hitherto enjoyed by the towns of Manchester, Bradford, Leeds, and Halifax alone). The list of excise general warehouses to which

wines and spirits may now be removed for bonding is appended to this report. As yet, however, the concession has not been very largely availed of. The following are the amounts paid over to us by the Inland Revenue Department on account of the duties received by them in every month from the date of the concession to the present time:— Appendix Y.

		Spirits.			Wines.		
		£	s.	d.	£	s.	d.
1869.	October	792	9	8	7	0	6
	November	1,168	15	3	139	11	0
	December	3,256	13	3	179	17	6
1870.	January	2,637	9	2	317	9	3
	February	2,899	14	6	317	13	1
	March	3,419	19	0	639	16	0
	April	3,961	11	3	866	18	0
	May	3,606	12	7	1,140	1	6
	Total in eight months	21,743	4	8	3,608	6	10

Samples to be admitted between Great Britain and the Zollverein free of duty.

Your Lordships having forwarded to us on the 4th of May, for our information and guidance, a copy of a declaration signed by Lord Augustus Loftus, Her Majesty's minister for Prussia and the North German Confederation, on behalf of the government, and by the President of the Federal Office in the name of the German Customs and Commercial Union, for the admission duty-free into the United Kingdom and the Zollverein, of patterns and samples liable to duty imported by commercial travellers, we proceeded immediately to give effect to the measure contemplated in that declaration, by preparing a form of bond to be entered into by the importers for the due exportation, deposit in warehouse of, or payment of duty on, such patterns and samples within the space of twelve months from the date of the bond, and on the 29th May we transmitted a general order to all the ports in the United Kingdom, allowing the officers to pass these samples and patterns, duty free, on a compliance on the part of the importers with the terms of the order.

Admission of articles bearing British marks.

The system under which, in accordance with the provisions of the 44th section of the Customs Consolidation Act, we had been for many years providing for the due protection of the manufacturers of Great Britain from frauds which importers were constantly attempting to practise upon them, by the imitation on foreign articles of British brands and marks, (a system which has been frequently explained to your Lordships in these reports,)

received very considerable modification by your Lordships order of 13th November last. In that order your Lordships expressed an opinion, that "there is no prohibition "in the act of the imposition of marks which are intended "to create the belief that articles of foreign make are of "British make, unless the method employed is by using "the name, brand, or mark *of some individual*, real or "fictitious." In conformity therefore with this opinion we have, since the date of your Lordships order, abstained from interfering in any way, as we had hitherto considered (under the clause of our Customs Act above referred to) we were bound to do, with all importations bearing British marks of a general character or description, such as the Royal Arms, Prince of Wales' feathers, &c., &c., or words known and used in British trades, so long as no British manufacturer's name, real or fictitious, was to be found upon the articles imported. This extensive relaxation of practice has no doubt relieved us and our officers from an onerous and in some instances a very difficult duty.

Repeal of the duty on corn, flour, &c.

On the repeal of the last remnant of the duty on corn, flour, &c., which took effect from 1st of June, many questions were raised of a somewhat novel character. The peculiarity of the case arose from the fact that the duty on corn and grain, articles which, since the original reduction of the duty to 1*s.* per quarter, have not been allowed by law to be warehoused, was legally due on the first importation thereof, and not, as in the case of other goods, on an entry being passed. It became therefore necessary to consider the provisions of the law defining the time of importation. This is also clearly laid down in our customs law as being the time when the importing vessel actually comes within the limits of the port at which she eventually reports and discharges her cargo. Many attempts were made to avoid the liability to duty thus imposed by retaining the corn on board ship till after the 1st of June, by remaining in the offing without entering the actual harbour, and even by leaving the port again, after arrival, for a time, to return and claim exemption from duty after the 1st of June. Your Lordships however supported us in the view we took of the law in question, and in all cases when the vessel had once arrived before the 1st of June, within the limits of the port, where she eventually reported and discharged, duty was held to be due, and her cargo was charged accordingly.

Sea Fisheries.

On the 1st of February the "Sea Fisheries Act, 1868," came into operation, and on the 4th of the same month

an Order in Council was issued establishing regulations under the 23rd section of the Act, for the registering, lettering, and numbering of sea fishing vessels and boats. These regulations were subsequently modified by a second Order in Council of the 18th June which cancelled the former Order, and the new code of regulations came into operation on the latter day, and are now in force throughout the whole of the coast of the United Kingdom and the Channel Islands. The keeping of the separated set of books for the registry of these vessels and boats, the collection of the information required under the Order in Council respecting their occupation, the issuing and endorsement of certificates, and the enforcement generally of the regulations laid down, has imposed much additional duty, unconnected with any question of revenue, upon our collectors at the various ports, and upon the officers of the coastguard force throughout the United Kingdom. We fear, also, from applications that we have already received, that considerable expense will eventually be incurred in providing for this duty, a charge which, strictly speaking, ought not to appear on the estimates for this Department.

Act and Regulations. 31 & 32 Vict. c. 45.

In the month of October 1868 the sugar trade in London having raised a question as to the mode of drawing samples from casks of muscovado sugar at the various ports of the United Kingdom, and having also brought the matter under the notice of the then Chancellor of the Exchequer, Mr. Ward Hunt, with a request that all samples of sugar for the assessment of duty might be taken at all ports upon one uniform system, we issued a circular letter to all the sugar ports, requiring a detailed explanation of the mode of sampling adopted at each, in every particular. Having obtained the required information, we then put ourselves in communication with the various persons interested both in London and Liverpool, and, as it appeared that they were desirous of adopting the system in force at the port of Greenock, after some discussion it was agreed that a series of experiments should be made in London, whereby the results of the different modes of sampling, adopted in London and at Greenock, should be fairly tested. These experiments resulted in proving to our satisfaction that, as far as the revenue was concerned, no loss had been incurred by reason of the different modes of sampling adopted at different ports; but, as it was clearly desirable to establish,

Amendment of regulations for sampling sugar.

if possible, one uniform system, (the only obstacle to which had always been the difficulty of reconciling the different opinions and views held by the interested parties in the trade at different ports), it was finally agreed that the system at present in force at Greenock should be for the future adopted at all ports including London. We therefore on the 13th March recommended this course to your Lordships, and on the 24th of the same month we received your sanction for carrying it into effect.

Smuggling.

We have no grounds for supposing that smuggling is on the increase, although, as we have already stated, the great dispatch and freedom from strict examination, accorded to a yearly increasing list of free goods, offer great temptations to the illicit trader, while at the same time they render any positive statement as to the existence or non-existence of smuggling, by the concealment of dutiable amongst free goods, impossible.

London.

In London a greater number of seizures appear to have been made in 1869 than in the preceding year, the number of cases brought under our notice in the year 1869 being 280 against 195 in 1868, showing an increase of 85 cases, or about 43·6 per cent.

Out of the above number of 280 cases, in 37 instances the quantities of tobacco and cigars exceeded 10 lbs., and in 10 instances the quantity of spirits exceeded two gallons.

Some of the most important seizures were the following; viz.:—

A seizure of 230 lbs. of cigars of a superior quality, found concealed in a case of tin manufactures being one of four cases entered as goods free of duty.

A seizure of 247 lbs. of tobacco and 2½ lbs. of cigars whilst being conveyed along the public road in a cab which was stopped by two officers of police at East Greenwich.

A seizure of 115 lbs. of tobacco whilst being conveyed in a cab at Millwall.

A seizure of 122 lbs. of tobacco, together with a horse and cab in which the tobacco was being conveyed from the residence of a notorious smuggler in Bermondsey.

In one instance a seizure of a somewhat novel character was made; viz., 10 lbs. of tobacco and 3 lbs. of cigars were discovered concealed underneath some straw at the bottom of a wicker basket, used for the conveyance of

poultry, and which, at the time of the discovery of the tobacco and cigars, contained five live ducks.

As regards the outports, there appears to have been a falling off in the number of cases of smuggling detected, as compared with the year 1868, as will be seen from the following tabular statements, which give a comparative account of smuggling in 1869 as compared with 1868. Outports.

Cases at the Outports in which Proceedings were taken by Information and Summons, viz., Seizures of Tobacco and Cigars exceeding 10 lbs., and of Spirits exceeding 2 Gallons.

	1868.	1869.	Decrease.
Number of Seizures - - -	169	127	42
Quantity of Tobacco, Cigars, and Tobacco Stalks - } lbs.	10,892	6,357	4,535
Quantity of Spirits - - galls.	460	226	234
Number of Convictions obtained -	224	157	67

Summary Cases at the Outports, viz., Seizures *not* exceeding 10 lbs. of Tobacco or Cigars, and *not* exceeding 2 Gallons of Spirits.

	1868.	1869.	Decrease.
Number of Seizures - - -	810	720	90
Number of Smugglers summarily convicted - - - -	807	602	205

The principal seizures took place at Cowes, Dover, Grimsby, Hull, Newcastle, Swansea, West Hartlepool, Cork, and Londonderry.

Amongst these may be mentioned a seizure of 459 lbs. of cigars at Swansea in May 1869; viz., 396 lbs. found concealed in various parts of the vessel "Florence," upon her arrival at that port with copper ore from Cuba; and of 63 lbs. seized on shore for having been illegally landed from that vessel.

The master, carpenter, and steward of the vessel were convicted on that occasion.

A seizure of 139 lbs. of cigars found concealed in five bales of cotton flock imported at West Hartlepool in the vessel "Gitana" from Hamburg in November last.

A seizure of 306 lbs. of tobacco on board the vessel "Mathilde" on her arrival at Grimsby from Antwerp in December last.

A seizure of 136 lbs. of tobacco, 7½ lbs. of cigars, and 4 7/10 gallons of spirits found concealed in mattresses belonging to five passengers (German Jews), who arrived at Hull in the vessel "Harlequin" from Hamburgh in December last.

In Ireland a seizure of eight bags containing 450 lbs. of unmanufactured tobacco was made by the officers of the constabulary at West Passage, near Cork, in February, together with a horse and cart, in which the same was being conveyed.

A seizure also took place at Londonderry of eight bales, containing 850 lbs. of unmanufactured tobacco, together with a horse and cart belonging to a baker, in which the tobacco was being conveyed.

Superannuations, compensations, &c.

The following is the account we usually give of the amount of superannuation and other allowances placed on and struck off the list in 1869. It will be seen that there is a decrease of expense to the public under every head, the saving in the year amounting to 10,524*l.*

	Placed on.	Struck off.	Increase.	Decrease.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Superannuations -	5,871 10 8	12,593 0 3	—	6,721 9 7
Compensations - -	315 0 0	3,919 17 9	—	3,604 17 9
Redundant allowances -	—	34 13 8	—	34 13 8
Pensions - -	43 17 0	207 6 11	—	163 9 11
	6,230 7 8	16,754 18 7	—	10,524 10 11

Medical Inspector's report.

The report of our medical inspector, Dr. Dickson, which we annex as usual, gives a favourable account of the sanitary condition of the force under his charge in 1869, when compared with former years. The following is the summary of the results set forth in the various interesting tables, prepared by Dr. Dickson, compared with the same abstract for 1868.

	1868.	1869.
Average number of men on the sick list daily	39 or 3·7 per cent.	36 or 3·3 per cent.
Ratio of cases admitted to the sick list -	82 per cent.	72 per cent.
Average duration of each case - -	16·7 days	17 days.
Time lost to the service through sickness or accident - - - - -	13·8 days	12·7 days.
Number of deaths from disease - - -	13 or 12·4 per 1,000	15 or 1·4 per 1,000
,, ,, from accident or violence -	2 or 1·9 per 1,000	3 or 2·8 per 1,000
,, of superannuations - - -	4 or 3·8 per 1,000	4 or 3·8 per 1,000

It will be seen from this return that more deaths than usual have occurred.

Dr. Dickson, however, states, in explanation, that 12 out of the 15 deaths from disease took place in the half year between 1st April and 30th September, (six in each quarter), and accounts for this apparently large number from the fact that several long-standing cases of a hopeless character had been left on the sick list from former quarters, and that no death had occurred in the force for five months previously. In addition to these deaths from disease, two young officers were accidentally drowned during the year, and one died in hospital from a self-inflicted wound in the throat. All further particulars respecting the health of the force will be found in Dr. Dickson's report.

We have the honour to remain,
My Lords,
Your Lordships' obedient servants,

THOS. F. FREMANTLE.
FREDERICK GOULBURN.
GRENVILLE C. L. BERKELEY.
FREDERICK ROMILLY.

Custom House, 1870.

APPENDIX.

APPENDIX (A.)

AN ACCOUNT showing the Amount of the Imports into and the Exports from the United Kingdom, stated in Real Value, in each Year from 1854 to 1869 inclusive.

YEARS.	Real Value.			
	Imports.	Exports.		
		Produce and Manufactures of the United Kingdom.	Foreign and Colonial Merchandise.	Total Exports.
	£	£	£	£
1854 - -	152,389,053	97,184,726	18,636,366	115,821,092
1855 - -	143,542,850	95,688,085	21,003,215	116,691,300
1856 - -	172,544,154	115,826,948	23,393,405	139,220,353
1857 - -	187,844,441	122,066,107	24,108,194	146,174,301
1858 - -	164,583,832	116,608,756	23,174,023	139,782,779
1859 - -	179,182,355	130,411,529	25,281,446	155,692,975
1860 - -	210,530,873	135,891,227	28,630,124	164,521,351
1861 - -	217,485,024	125,102,814	34,529,684	159,632,498
1862 - -	225,716,976	123,992,264	42,175,870	166,168,134
1863 - -	248,919,020	146,602,342	50,300,067	196,902,409
1864 - -	274,952,172	160,449,053	52,170,561	212,619,614
1865 - -	271,072,285	165,835,725	52,995,851	218,831,576
1866 - -	295,290,274	188,917,536	49,988,146	238,905,682
1867 - -	275,183,137	180,961,923	44,840,606	225,802,529
1868 - -	294,693,608	179,677,812	48,100,642	227,778,454
1869 - -	295,428,967	190,045,230	47,061,095	237,106,325

Office of the Inspector General of Imports and Exports,
Custom House, London, 25th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (B.)

GENERAL SUMMARY showing the Gross Amount of Duty collected by the Customs at London, Liverpool, and the other Ports of England (exclusive of the Isle of Man), and at the Ports of Scotland and Ireland respectively, in the Years ended 31st December 1868 and 1869, specifying the Increase or Decrease, and also showing the Amount of Duty received by the Customs on British Spirits during the same period.

	Gross Amount of Duty collected.		Increase.	Decrease.	Duty received on British Spirits.		Increase.	Decrease.
	1868.	1869.			1868.	1869.		
	£	£	£	£	£	£	£	£
LONDON	10,694,494	10,484,555	-	209,939	37,589	46,590	9,001	
LIVERPOOL	3,079,566	3,158,300	78,734	-	184,493	219,222	34,729	
Other Ports of ENGLAND	3,347,186	3,413,027	65,841	-	246,748	293,094	46,346	
SCOTLAND	3,436,308	3,073,045	-	363,263	426,762	452,125	25,363	
IRELAND	2,135,953	2,095,276	-	40,677	598,096	671,812	73,716	
TOTAL	22,693,507	22,224,203	144,575	613,879	1,493,688	1,682,843	189,155	
DECREASE	-	-	-	469,304	-	INCREASE	189,155	

Examiner's Office, Custom House, London,
30th March 1870.

W. W. TAYLOR.

APPENDIX (C.)

RETURN showing the Gross Amount of Customs Duties collected in the several Ports of the United Kingdom for the Years ended 31st December 1868 and 1869, specifying the Articles upon which any Increase or Decrease has taken place, and also showing the Amount of Duty received by the Customs upon British Spirits during the same period.

ENGLAND.

PORT.	Amount of Duty.		Increase.	Decrease.	Articles.		Duty received on British Spirits.		Increase.	Decrease.	REMARKS.
	1868.	1869.			Increase.	Decrease.	1868.	1869.			
	£	£	£	£			£	£	£	£	
LONDON	10,694,404	10,484,555	- -	209,939	Tea, Spirits.	Corn, Coffee, Sugar, Tobacco, Wine.	37,589	46,590	9,001	—	———
LIVERPOOL	3,079,566	3,158,300	78,734	- -	Sugar, Tobacco.	- - -	184,493	219,222	34,729	—	———
ABERYSTWITH	73	2	- -	71	- - -	Corn - -	- - -	- - -	- -	- -	The decrease is caused by the abolition of the duty on corn and timber.
BARNSTAPLE	7,640	8,085	445	- -	Brandy, Wine.	- - -	1,053	1,282	229	—	———
BEAUMARIS	296	201	- -	95	- - -	Corn -	1,109	- - -	- -	1,109	The decrease is caused by the abolition of the duty on corn.

Appendix (C.)—England—*continued.*

Port.	Amount of Duty. 1868.	Amount of Duty. 1869.	Increase.	Decrease.	Articles. Increase.	Articles. Decrease.	Duty received on British Spirits. 1868.	Duty received on British Spirits. 1869.	Increase.	Decrease.	Remarks.
Berwick	£ 5,738	£ 5,602	£ - -	£ 136	Tea, Coffee.	Corn, Brandy, Wine, Tobacco.	£ 868	£ 1,102	£ 234	£ - -	In 1868 404*l.* was paid on corn, the duty on which is now abolished.
Bideford	3,124	2,859	- -	265	- - -	Coffee, Wine.	305	441	136	- -	An exceptional amount of duty on wine was paid in 1868.
Boston	37,348	38,976	1,628	- -	Tobacco, Brandy, Wine.	Rum	461	632	171	- -	There is an increase of 1,300*l.* on tobacco.
Bradford	40,785	38,231	- -	2,554	Cigars	Tobacco	9,001	11,267	2,266	- -	A tobacco manufacturer has declined business.
Bridgwater	5,827	6,933	1,106	- -	Brandy, Rum, Tea.	- - -	119	333	214	- -	More than half the increase is on brandy.
Bridport	3,202	3,121	- -	81	Brandy, Geneva, Wine.	Rum, Corn.	273	331	58	—	———
Bristol	1,120,439	1,183,861	63,422	- -	Sugar, Tobacco, Brandy, Wine.	Corn	27,249	39,772	12,523	- -	There is an increase of 47,000*l.* on sugar, and 19,000*l.* on tobacco.
Cardiff	15,466	16,158	692	- -	Tobacco	Flour	2,209	3,596	1,387	- -	There is an increase of 2,650*l.* on tobacco, owing to the greater development of the manufacture of that article.
Cardigan	—	2	2	—	—	—	—	—	—	—	———
Carlisle	19,037	19,156	119	- -	Tea, Tobacco, Sugar.	Grain	4,140	7,128	2,988	- -	There is a decrease of 1,060*l.* caused by the abolition of the duty on grain.
Carnarvon	8,855	8,720	- -	135	- - -	Grain	4,898	4,996	98	- -	The decrease is caused by the abolition of the duty on grain.

Appendix (C.)—England—*continued.*

Port.	Amount of Duty. 1868.	Amount of Duty. 1869.	Increase.	Decrease.	Articles. Increase.	Articles. Decrease.	Duty received on British Spirits. 1868.	Duty received on British Spirits. 1869.	Increase.	Decrease.	Remarks.
	£	£	£	£			£	£	£	£	
Castletown -	3,478	4,104	626	- -	Rum, Geneva, Tea, Tobacco.	Wine -	1,065	1,141	76	—	———
Chepstow -	5,228	3,601	- -	1,627	- - -	Wine, Spirits.	1,506	1,541	35	- -	The trade is in a depressed state, owing to the suspension of the Chepstow Iron Works.
Chester -	87,312	79,494	- -	7,818	- - -	Rum, Tobacco.	11,711	9,127	- -	2,584	There is a decrease of 2,360*l.* on rum, and 5,750*l.* on tobacco, caused by the depressed state of trade.
Colchester -	10,720	10,644	- -	76	Wine -	Tea, Grain.	734	921	187	- -	There is a decrease of 300*l.* on grain, caused by the abolition of the duty.
Cowes - -	4,173	5,493	1,320	- -	Rum, Wine, Tea.	Brandy -	204	193	- -	11	There is a recovery in the trade.
Dartmouth -	4,428	3,362	- -	1,066	- - -	Grain -	16	62	46	- -	There is a decrease of 1,000*l.* on grain, caused by the abolition of the duty.
Deal - -	3,139	2,410	- -	729	- - -	Corn, Rum, Wine.	170	218	48	- -	There is a decrease of 400*l.* on corn, caused by the abolition of the duty.
Douglas -	26,574	24,559	- -	2,015	Tea - -	Rum, Brandy, Geneva, Wine.	6,584	6,901	317	- -	Large quantities of wines and spirits are removed duty paid from England.
Dover - -	13,580	10,580	- -	3,000	- - -	- - -	244	272	28	- -	The decrease is caused by the transfer of the business of Messrs. Gandet Frères to London.
Exeter - -	113,582	115,677	2,095	- -	Tobacco, Rum, Wine.	- - -	2,200	2,341	141	- -	The trade of the port is on the increase.

PORT.	Amount of Duty. 1868.	Amount of Duty. 1869.	Increase.	Decrease.	Articles. Increase.	Articles. Decrease.	Duty received on British Spirits. 1868.	Duty received on British Spirits. 1869.	Increase.	Decrease.	REMARKS.
FALMOUTH	£ 5,251	£ 4,461	£ -	£ 790	-	Corn, Brandy.	£ 356	£ 401	£ 45	£ -	The mining districts are still in a depressed condition.
FAVERSHAM	1,056	1,121	65	-	-	-	-	30	30	—	
FLEETWOOD	935	577	-	358	-	Corn, Rum.	343	469	126	-	There is a decrease of 296*l.* on corn, caused by the abolition of the duty.
FOLKESTONE	14,428	14,406	-	22	-	-	80	34	-	46	
FOWEY	592	660	68	-	Wine	Brandy.	-	-	-	-	There is a slight increase in the trade of the port.
GAINSBORO'	8,742	8,640	-	102	-	-	269	920	651	—	
GLOUCESTER	61,811	41,334	-	20,477	Sugar, Rum, Wine.	Corn, Brandy.	2,234	2,759	525	-	There is a decrease of 19,500*l.* on corn, caused by the abolition of the duty.
GOOLE	18,101	15,975	-	2,126	-	Corn, Flour.	-	-	-	-	The decrease is caused by the abolition of the duty on corn.
GRIMSBY	59,689	99,130	39,441	-	Sugar, Tobacco.	-	557	785	228	-	The trade of the port is steadily on the increase.
HALIFAX	15,380	14,400	-	980	-	Rum	10,068	11,379	1,311	-	The taste of the population appears to have been for British spirits in the place of rum.
HARTLEPOOL	17,411	9,280	-	8,131	Tobacco, Rum.	Corn	1,939	2,572	633	-	There is a decrease of 8,462*l.* on corn, caused by the abolition of the duty.
HARWICH	18,771	19,093	322	-	Wine. Spirits, Tobacco.	-	-	-	-	-	The continental trade continues steadily to increase.
HAYLE	2,783	3,052	269	-	Fruit, Sugar.	Grain	-	-	-	-	There is a decrease of 378*l.* on grain caused by the abolition of the duty.

PORT.	Amount of Duty		Increase.	Decrease.	Articles.		Duty received on British Spirits.		Increase.	Decrease.	REMARKS.
	1868.	1869.			Increase.	Decrease.	1868.	1869.			
	£	£	£	£			£	£	£	£	
HULL	342,550	349,204	6,645	-	Sugar	Corn	3,689	5,590	1,901	-	There is a very large decrease on corn, but this is more than counterbalanced by large importations of beet-root sugar, a branch of trade steadily increasing.
IPSWICH	28,496	26,051	-	2,045	Sugar	Corn	530	1,215	685	-	The decrease is entirely on corn caused by the abolition of the duty.
LANCASTER	12,468	11,912	-	556	Tea, Tobacco, Brandy.	Rum, Wine, Sugar, Coffee.	1,954	2,034	80	—	
LEEDS	95,824	103,261	7,437	-	Tobacco, Spirits, Wine. Tea, Coffee.	-	9,043	9,905	862	-	The trade of this inland bonding town is steadily increasing.
LITTLEHAMPTON.	1,249	803	-	446	-	Corn	-	-	-	-	The decrease is caused by the abolition of the duty on corn.
LLANELLY	1,688	2,089	401	-	Rum, Brandy.	-	346	352	6	-	The depression of trade is gradually passing away.
LOWESTOFT	2,882	2,687	-	195	-	Corn, Wine, Spirits.	46	71	25	—	
LYME	440	341	-	99	-	Brandy, Rum.	-	-	-	-	A spirit merchant has paid duty at another port.
LYNN	15,835	15,363	-	472	Tea, Tobacco Spirits, Wine.	Grain	180	129	-	51	The decrease is caused by the abolition of the duty on grain.
MALDON	268	5	-	263	-	Corn	-	-	-	-	The decrease is caused by the abolition of the duty on corn.
MANCHESTER	133,064	124,577	-	8,487	Wine, Tea, Sugar.	Spirits, Coffee, Tobacco.	22,821	23,665	844	-	There is a large decrease on tobacco, caused by the death of a merchant.

APPENDIX (C.)—ENGLAND—*continued.*

PORT.	Amount of Duty.		Increase.	Decrease.	Articles.		Duty received on British Spirits.		Increase.	Decrease.	REMARKS.
	1868.	1869.			Increase.	Decrease.	1868.	1869.			
MARYPORT	£ 3,441	£ 3,756	£ 315	£ - -	Tea, Rum.	- - -	£ 3,206	£ 3,438	£ 232	£ —	The trade of the port has increased during the past year.
MIDDLESBRO'	1,859	2,224	365	- - -	Wine, Spirits.	- - -	1,516	1,424	- -	92	
MILFORD	147	65	- -	82	- - -	Corn -	- - -	- - -	- -	- -	The decrease is caused by the abolition of the duty on corn.
NEWCASTLE	206,574	237,216	30,642	- -	Tobacco, Rum, Sugar, Tea.	Corn, Brandy.	39,161	47,840	8,679	- -	There is an increase of 32,000*l.* on tobacco, the manufacture of that article having considerably increased in the past year.
NEWHAVEN	16,736	13,823	- -	2,913	- - -	Grain, Wine.	410	2	- -	408	There is a decrease of 2,025*l.* caused by the abolition of the duty on corn.
NEWPORT	41,492	43,054	1,562	- -	Rum, Wine, Tobacco.	Brandy, Corn.	3,416	4,876	1,460	- -	There is an increase of 2,280*l.* on tobacco.
PADSTOW	49	6	- -	43	- - -	- - -	- - -	- - -	- -	- -	Duty was paid on a derelict cask of rum in 1868.
PENZANCE	5,293	5,213	- -	80	Fruit -	Spirits, Wine.	145	250	105	- -	The trade of the port is still in a depressed state.
PLYMOUTH	202,015	176,087	- -	25,928	Tea - -	Sugar, Corn.	2,043	1,586	- -	457	The principal decrease is caused by the failure of a sugar refinery.
POOLE	4,015	3,843	- -	172	Wine -	Corn, Tea.	162	231	69	- -	The decrease is owing to the abolition of the duty on corn.
PORTSMOUTH	23,845	25,227	1,382	- -	Sugar -	- - -	3,965	5,426	1,461	- -	Large quantities of refined sugar have been imported from France.

APPENDIX (C.)—ENGLAND—*continued.*

PORT.	Amount of Duty. 1868.	Amount of Duty. 1869.	Increase.	Decrease.	Articles. Increase.	Articles. Decrease.	Duty received on British Spirits. 1868.	Duty received on British Spirits. 1869.	Increase.	Decrease.	REMARKS.
PRESTON	£ 51,230	£ 44,963	£ - -	£ 6,267	- - -	Tobacco, Wine, Spirits.	£ 14,213	£ 14,503	£ 290	£ - -	The cotton trade is in a very depressed condition at this port.
RAMSEY	5,074	4,729	- -	345	Tea - -	Rum, Brandy.	1,464	1,447	- -	17	There were very few visitors at Ramsey in the summer of 1869.
RAMSGATE	3,616	3,830	214	- -	Wine, Spirits.	- - -	210	256	46	—	——
ROCHESTER	5,872	4,687	- -	1,185	Rum	Corn, Brandy.	1,813	1,477	- -	336	The decrease is almost entirely caused by the abolition of the duty on corn.
RUNCORN	1,365	1,720	355	- -	Rum, Chicory.	- - -	770	1,146	376	- -	220*l.* of the increase is on chicory.
RYE	5	66	61	- -	Wine	- - -	- - -	- - -	- -	- -	Duty was paid in 1869 on some derelict wine.
SCARBOROUGH	2,514	2,591	77	- -	Rum	Brandy, Wine.	511	795	284	—	———
SCILLY	1	10	9	- -	- - -	- - -	- - -	- - -	- -	—	———
SHOREHAM	9,343	9,114	- -	229	Rum	Brandy, Corn, Wine.	280	385	105	- -	The decrease is owing to the abolition of the duty on corn.
SOUTHAMPTON	101,122	103,168	2,046	- -	- - -	- - -	1,755	1,883	128	- -	The increase is general on all goods.
SHIELDS, North	21,962	18,884	- -	3,078	- - -	Tobacco, Spirits.	9,688	7,550	- -	2,088	There is a decrease of 1,443*l.* on tobacco, and 1,430*l.* on spirits, owing to the depressed state of trade.
SHIELDS, South	9,721	8,924	- -	797	Spirits	Grain	5,888	6,311	473	- -	There is a decrease of 1,320*l.* on grain, owing to the abolition of the duty.
STOCKTON	70,039	67,357	- -	2,682	Tea, Coffee, Spirits, Tobacco.	Corn - -	6,574	9,607	3,033	- -	There is a decrease of 2,240*l.* on corn, owing to the abolition of the duty.

Appendix (C.)—England—*continued.*

Port.	Amount of Duty.		Increase.	Decrease.	Articles.		Duty received on British Spirits.		Increase.	Decrease.	Remarks.
	1868.	1869.			Increase.	Decrease.	1868.	1869.			
	£	£	£	£			£	£	£	£	
Sunderland	64,504	72,978	8,474	- -	Tobacco -	Tea -	17,196	21,426	4,230	- -	There is an increase of 9,000*l.* on tobacco, owing to two new manufactories having been started.
Swansea -	8,610	6,534	- -	2,076	- - -	Grain, Spirits.	3,532	3,140	- -	392	The trade has been in a very depressed state, but recently there has been some improvement.
Teignmouth -	1,390	2,034	644	- -	Wine, Spirits.	- - -	68	56	- -	12	———
Truro -	6,903	7,729	826	- -	Currants, Brandy, Wine.	- - -	296	390	94	- -	There is an increase of 650*l.* on brandy.
Wells -	180	135	- -	45	- - -	Corn - -	- - -	- - -	- -	- -	The decrease is owing to the abolition of the duty on corn, the trade having increased.
Weymouth -	11,071	10,859	- -	212	- - -	Corn -	379	512	133	- -	The decrease is entirely caused by the abolition of the duty on corn.
Whitby -	3,252	3,222	- -	30	- - -	- - -	94	157	63	—	———
Whitehaven	63,004	63,500	496	- -	Brandy, Coffee, Tobacco.	- - -	6,785	9,035	2,250	—	———
Wisbeach -	954	579	- -	375	- - -	Corn -	- - -	- - -	- -	- -	The decrease is entirely caused by the abolition of the duty on corn.
Woodbridge	1,869	1,794	- -	75	- - -	Corn -	198	178	- -	20	The decrease is entirely on corn, caused by the abolition of the duty.
Workington	2,949	3,165	216	- -	Rum -	- - -	- - -	246	246	- -	The trade of the port has considerably revived.
Yarmouth -	30,477	32,805	2,328	- -	Brandy, Rum, Wine.	Corn -	690	1,029	339	- -	There is a steady increase in the general trade of the port.

Appendix (C.)—Scotland.

Port.	Amount of Duty. 1868.	Amount of Duty. 1869.	Increase.	Decrease.	Articles. Increase.	Articles. Decrease.	Duty received on British Spirits. 1868.	Duty received on British Spirits. 1869.	Increase.	Decrease.	Remarks.
Aberdeen	£ 80,415	£ 77,447	£ -	£ 2,968	Tobacco	Grain	£ 16,506	£ 17,522	£ 1,016	£ -	The decrease is caused by the abolition of the duty on grain.
Alloa	2,577	2,460	-	117	-	Corn	1,244	995	-	249	The decrease is caused by the abolition of the duty on corn.
Arbroath	16,923	14,741	-	2,182	-	Tobacco	6,493	6,864	371	-	Duty was paid on an excessive quantity of tobacco in 1868.
Ardrossan	139	102	-	37	-	-	667	594	-	73	———
Ayr	2,876	2,203	-	673	-	Tea, Rum, Tobacco,	7,046	6,143	-	903	Two merchants have ceased to bond tea at this port.
Banff	2,188	2,936	748	-	Tobacco	Tea, Grain.	15	2	-	13	There is a considerable increase in the trade in tobacco.
Boness	401	311	-	90	-	Corn	518	537	19	-	The decrease is entirely caused by the abolition of the duty on corn.
Campbeltown	1,269	811	-	458	-	Barley	-	-	-	-	The decrease is caused by the abolition of the duty on grain, the trade having increased.
Dumfries	4,606	4,986	380	-	Tea	-	2,757	2,292	-	465	———
Dundee	79,244	77,440	-	1,804	Rum, Tea.	Corn, Wine, Sugar.	40,415	47,661	-	7,246	There is a decrease of 1,400*l.* on corn, caused by the abolition of the duty.
Glasgow	1,112,065	932,490	-	179,575	Tea	Sugar, Corn.	237,664	250,903	13,239	-	There is a large decrease on sugar, caused by the stoppage of a sugar refinery.
Grangemouth	7,220	2,260	-	4,960	-	Grain	1,146	1,238	92	-	The decrease is entirely on grain, caused by the abolition of the duty.

PORT.	Amount of Duty. 1868.	Amount of Duty. 1869.	Increase.	Decrease.	Articles. Increase.	Articles. Decrease.	Duty received on British Spirits. 1868.	Duty received on British Spirits. 1869.	Increase.	Decrease.	REMARKS.
	£	£	£	£			£	£	£	£	
GRANTON	2,275	5,280	3,005	-	Tobacco, Tea.	-	-	-	-	-	There is a considerable increase in the trade of this place.
GREENOCK	1,458,271	1,354,229	-	104,042	-	Sugar	11,152	9,563	-	1,589	The refineries were partially closed during the months of August and September for want of water.
INVERNESS	4,638	2,838	-	1,800	-	Grain, Spirits.	8,220	7,750	-	470	There were no importations of unenumerated spirit in the year 1869.
KIRKCALDY	23,336	23,932	596	-	Tea, Tobacco.	Corn	9,720	11,195	1,475	-	The increase would have been much larger but for the abolition of the duty on corn.
KIRKWALL	—	—	—	—	—	—	—	—	—	—	
LEITH	605,060	537,419	-	67,641	-	Grain, Tobacco.	78,702	82,009	3,307	-	There is a large falling off on grain, the revenue on which amounted to 60,000*l.* per annum.
LERWICK	-	7	7	—	—	—	—	—	—	—	
MONTROSE	3,200	1,669	-	1,531	-	Corn	1,466	1,506	40	-	The decrease is caused by the abolition of the duty on corn.
PERTH	14,815	15,374	559	-	Spirits, Tobacco.	Sugar, Wine.	629	891	262	—	
PETERHEAD	1,505	1,571	66	-	Tea	-	714	1,740	1,026	—	
PORT GLASGOW	3,921	3,064	-	857	-	Sugar	1,370	2,553	1,183	-	Duty was paid in 1868 on a cargo of sugar from Trinidad.
STORNOWAY	11	5	-	6	-	-	-	-	-	-	Duty was paid in 1868 on a larger quantity of wrecked goods.
STRANRAER	146	1	-	145	-	Corn	-	-	-	-	The decrease is caused by the abolition of the duty on grain.
TROON	8,402	8,950	548	-	Tobacco	Spirits	314	98	-	216	There is an increase of 740*l.* on the manufacture of tobacco.
WICK	803	516	-	287	-	Corn	-	72	72	-	The decrease is caused by the abolition of the duty on corn.
WIGTOWN	—	—	—	—	—	—	—	—	—	—	

Appendix (C.)—Ireland.

Port.	Amount of Duty.		Increase.	Decrease.	Articles.		Duty received on British Spirits.		Increase.	Decrease.	Remarks.
	1868.	1869.			Increase.	Decrease.	1868.	1869.			
Ballina	£ 2,752	£ 2,917	£ 165	£ - -	Tea, Wine, Brandy.	Corn -	£ 11,756	£ 14,128	£ 2,372	£ - -	The amount of duty paid on tea is steadily increasing.
Belfast -	334,213	324,417	- -	9,796	Rum, Spirits, Tea.	Corn, Brandy, Tobacco.	393,226	402,544	9,318	- -	There is a decrease of 10,900*l.* on corn, caused by the abolition of the duty.
Coleraine -	5,494	5,802	308	- -	Spirits, Wine.	- - -	55	494	439	- -	The trade of the port is steadily increasing.
Cork - -	349,945	361,996	12,051	- -	Brandy, Tobacco.	Corn -	16,650	31,874	15,224	- -	The trade of the port is steadily improving. The decrease on corn amounted to 15,000*l.*
Drogheda -	1,909	2,133	224	- -	Tea, Wine.	- - -	3,047	5,136	2,089	—	———
Dublin -	974,452	962,227	- -	12,225	Tea, Sugar, Spirits.	Grain, Tobacco.	79,063	129,017	49,954	- -	There is a decrease of 31,000*l.* on tobacco, owing to smaller quantities of the manufactured article having been sent to England.
Dundalk -	40,290	39,727	- -	563	Tea.	Spirits, Wine, Tobacco.	510	494	- -	16	One of the wine and spirit merchants has removed his stock to an excise warehouse.
Galway -	17,637	16,463	- -	1,174	Tea.	Tobacco, Corn.	3,025	3,228	203	- -	There is a decrease of 1,100*l.* on corn, caused by the abolition of the duty.
Limerick -	107,791	114,772	6,981	- -	Tobacco, Tea, Brandy,	Corn -	35,157	28,905	- -	6,252	There is a loss of about 7,000*l.* on corn.

Appendix (C.)—Ireland—*continued.*

Port.	Amount of Duty. 1868.	Amount of Duty. 1869.	Increase.	Decrease.	Articles. Increase.	Articles. Decrease.	Duty received on British Spirits. 1868.	Duty received on British Spirits. 1869.	Increase.	Decrease.	Remarks.
Londonderry	£ 129,709	£ 115,791	£ - -	£ 13,918	Tea, Sugar, Brandy.	Tobacco, Wine, Rum.	£ 1,449	£ 1,120	£ - -	£ 329	Duty has been paid to the Inland Revenue on some wines and spirits.
New Ross -	17,902	17,165	- -	737	Tobacco -	Corn, Wine.	2,392	3,512	1,120	- -	There is an increase of 880*l.* on tobacco, and a decrease of 1,510*l.* on corn.
Newry - -	16,748	16,638	- -	110	Tea, Wine, Spirits.	Corn -	10,583	7,374	- -	3,209	There is an increase of 1,200*l.* on warehoused goods, and a falling off of 1,300*l.* on corn.
Skibbereen -	139	208	69	- -	Brand -	—	—	—	—	—	———
Sligo - -	32,442	27,065	- -	5,377	Tea, Wine.	Tobacco, Grain,	20,172	21,138	966	- -	There is a decrease of 4,690*l.* on tobacco, and 1,110*l.* on grain.
Tralee -	13,376	12,178	- -	1,198	- - -	Grain -	9,575	15,217	5,642	- -	The decrease is entirely owing to the abolition of the duty on grain, as the trade has considerably increased.
Waterford -	83,061	68,111	- -	14,950	Tea, Wine.	Tobacco, Corn.	136	469	333	- -	A tobacco manufacturer paid duty in Dublin during a portion of the year.
Westport -	806	756	- -	50	- - -	- - -	8,492	3,536	- -	4,856	———
Wexford -	7,047	6,011	- -	1,036	- - -	Corn -	1,125	2,365	1,240	- -	The decrease is entirely caused by the abolition of the duty on corn.
Youghal -	1,029	886	- -	143	Wine, Spirits.	Corn -	1,942	1,261	- -	681	———

APPENDIX (D.)

A STATEMENT showing the Alterations which have taken place in the Customs Tariff during the Year 1869, and showing, also, the Authority under which each of those Alterations has been carried into effect.

—	Rates of Duty chargeable at the commencement of the Year 1869.	Rates of Duty substituted in the Year 1869.	Authority by which the Alterations were made and date from which carried into effect.
	£ s. d.		
Corn and Grain -	0 0 3 per Cwt.	Free.	
Meal and Flour -	0 0 4½ „		
Arrowroot, Potato Flour, Sago, and other Farinaceous Substances charged with the same Duty as Meal and Flour	0 0 4½ „		
Beer and Ale:			
Mum - -	1 0 0 per Barrel of 32 Gallons	- - - 1 1 0 per Bar. of 36 Gals.	Act 32 & 33 Vict. c. 14. 1 June 1869.
		The Worts of which were, before fermentation, of the under-mentioned specific gravity:	
Spruce - -	1 0 0 „	Not exceeding 1·190 degrees - 1 1 0 „	
		Exceeding 1·190 degrees - - 1 4 0 „	
Of other Sorts -	1 0 0 „	Not exceeding 1·065 degrees - 0 8 0 „	
		Exceeding 1·065 and not exceeding 1·090 degrees 0 11 0 „	
		Exceeding 1·090 degrees - 0 16 0 „	

Office of the Inspector General of Imports and Exports,
Custom House, London, 8th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (E.) - - - -

AN ACCOUNT of the Gross Produce of Customs Duties in the United Kingdom in the Amount collected, and Rates of Duty chargeable on each of the principal Articles: entered, &c.; and of the aggregate Net Receipt of Customs Duties in the same

	Gross Produce of Customs Duties. Years ended 31st December.		Increase or Decrease of the Gross Produce in the Year 1869, as compared with the Year 1868.	
	1868.	1869.	Increase.	Decrease.
	£	£	£	£
Chicory - - - - - -	110,073	99,433	—	10,640
Cocoa, Cocoa Husks, and Chocolate - -	26,453	30,337	3,884	—
Coffee - - - - - -	382,626	363,872	—	18,754
Corn (Duty repealed from 1st June 1869) -	864,097	339,347	—	524,750
Fruit, dried: Currants - - - -	277,148	281,248	4,100	—
„ Figs, Plums, and Prunes - -	30,607	41,797	11,190	—
„ Raisins - - - -	126,580	123,624	—	2,956
Spirits: Rum - - - - -	2,007,712	1,916,077	—	91,635
„ Brandy - - - -	1,729,356	1,701,441	—	27,915
„ Geneva and other sorts - - -	596,360	601,601	5,241	—
Sugar - - - - - -	5,641,937	5,642,859	922	—
„ Molasses - - - -	102,961	115,548	12,587	—
Tea - - - - - -	2,672,978	2,797,219	124,241	—
Tobacco and Snuff - - - - -	6,578,751	6,641,980	63,229	—
Wine - - - - -	1,521,194	1,512,122	—	9,072
Other Articles (taken collectively) - -	24,674	*21,243	—	3,431
AGGREGATE GROSS RECEIPT - -	22,693,507	22,229,748	—	463,759
Deduct Drawbacks and Repayments -	281,724	317,528	—	35,804
AGGREGATE NET RECEIPT - -	22,411,783	21,912,220	—	499,563

* See Supplementary Account, exhibiting the separate

Office of the Inspector General of Imports and Exports,
Custom House, London, 28th March 1870.

APPENDIX (E.)

Year 1869, compared with the Receipt in the preceding Year 1868; specifying the Also, of the aggregate Amount paid for Drawbacks, Allowances for Goods over-Years.

RATES of DUTY chargeable on the Principal Articles during the Years 1868 and 1869.

		£	s.	d.
Chicory, Raw or Kiln, dried	Per Cwt.	1	6	6
„ Roasted or Ground	Per Lb.	0	0	4
Cocoa - - -	„	0	0	1
„ Husks and Shells -	Per Cwt.	0	2	0
„ Paste and Chocolate -	Per Lb.	0	0	2
Coffee, Raw - - -	„	0	0	3
„ Kiln, dried, roasted or ground -	„	0	0	4
Corn :				
To 1st June 1869 :				
Corn and Grain -	Per Cwt.	0	0	3
Meal and Flour -	„	0	0	4½
From 1st June 1869 - -		Free.		
Fruit, dried - - -	„	0	7	0
Spirits, viz., Not sweetened or mixed :				
Rum, from the Country of its production -	Per Proof Gallon.	0	10	2
„ not from ditto -	„	0	10	5
Brandy, Geneva, and other sorts -	„	0	10	5
Sweetened or Mixed :				
Rum Shrub, Liqueurs, &c. of British Possessions	Per Gallon	0	10	2
Other Sweetened Spirits	„	0	14	0
Sugar : Refined and Candy	Per Cwt.	0	12	0
„ Unrefined :				
1st Class - -	„	0	11	3
2d Class - -	„	0	10	6
3d Class - -	„	0	9	7
4th Class (including Cane Juice) - - -	„	0	8	0
Molasses - -	„	0	3	6

		£	s.	d.
Tea - - -	Per Lb.	0	0	6
Tobacco, Unmanufactured :				
Containing 10 lbs. or more of moisture in every 100 lbs. weight thereof	„	0	3	$1\frac{8}{10}$
Containing less than 10 lbs. of moisture in every 100 lbs. weight thereof	„	0	3	6
Tobacco, Manufactured :				
Segars - -	„	0	5	0
Cavendish or Negrohead	„	0	4	6
„ Manufactured in Bond -	„	0	4	0
Snuff, containing more than 13 lbs. of moisture in every 100 lbs. weight thereof - -	„	0	3	9
„ not containing more than 13 lbs. of moisture in every 100 lbs. weight thereof - -	„	0	4	6
Other Manufactured Tobacco	„	0	4	0
Wine,—				
Containing less than 26 degrees of Proof Spirit	Per Gallon	0	1	0
Containing 26 degrees and less than 42 degrees of Proof Spirit - -	„	0	2	6
With additional for each degree of strength beyond 41 - - -	„	0	0	3

eceipt and Rates of Duty on each of the "Other Articles."

EDW. BERNARD,
Inspector General.

FIRST SUPPLEMENT to APPENDIX (E.), exhibiting the separate RECEIPT and the RATES of DUTY chargeable on each of the "OTHER ARTICLES."

ARTICLES.	Gross Amount of Duty collected on each in the Year ended 31st Dec. 1869.	Rates of Duty chargeable.	Reasons for levying the Duty.
	£		
Arrow root	131	To 1st June 1869, 4½*d.* per cwt. From 1st June 1869, Free.	In respect of the duty on corn and meal.
Barley, pearled	1		
Biscuit and bread	20		
Cassava powder	14		
Mandioca flour	—		
Manna croup	—		
Potato flour	1,122		
Powder of all sorts	—		
Rice dust and meal	113		
Sago	1,789		
Semolina	19		
Starch and gum of starch	135		
Tapioca	303		
Vermicelli and maccaroni	79		
Almond paste	—	1*d.* per lb.	In respect of the duty on sugar.
Cherries, dried	4		
Comfits, dry	—		
Confectionery	1,983		
Ginger, preserved	1,462		
Marmalade	2		
Plums preserved in sugar	2		
Succades	1,863		
		To 1st June 1869. Per barrel of 32 gallons. / From 1st June 1869. Per barrel of 36 gallons.	
Beer, mum	1	20*s.* / 21*s.*	To countervail the excise duty on British malt.
„ spruce	2,164	20*s.* / 21*s.* and 24*s.* according to the specific gravity of the worts.	
„ of other sorts	2,049	20*s.* / 8*s.*, 11*s.*, & 16*s.*, according to the specific gravity of the worts.	
Essence of spruce	1	10*l.* per cent. ad valorem	
Malt, foreign	—	25*s.* per quarter	
Chloroform	172	3*s.* per lb.	In respect of the duty on spirits.
Collodion	24	24*s.* per gallon	
Ether	98	25*s.* „	
Varnish containing alcohol	133	12*s.* „	
Plate, of gold	26	17*s.* per oz. troy.	To countervail the stamp duty on British plate.
„ of silver	4,357	1*s.* 6*d.* „ „	
Vinegar	621	3*d.* per gallon	To countervail the excise duty on British malt.
Pickles preserved therein	6	1*d.* „	
Cards, playing	282	3*s.* 9*d.* per dozen packs	To countervail the stamp duty and licence for selling British made cards.
Countervailing duties on articles the produce of the Isle of Man and the Channel Islands	2,267		
	21,243		

Office of the Inspector General of Imports and Exports, Custom House, London, 28th March 1870.

EDW. BERNARD, Inspector General.

SECOND SUPPLEMENT to APPENDIX (E.), showing the DRAWBACKS and REPAYMENTS in the Years ended 31st December 1868 and 1869, respectively.

—	Year ended 31st December 1868.			Year ended 31st December 1869.			Increase or Decrease in the Year 1869 in the Amount of Drawbacks and Repayments as compared with the Year 1868.	
	Drawbacks.	Repayments.	Total.	Drawbacks.	Repayments.	Total.	Increase.	Decrease.
	£	£	£	£	£	£	£	£
Chicory	—	348	348	—	49	49	—	299
Cocoa, Cocoa Husks, and Chocolate	—	219	219	—	90	90	—	129
Coffee	2,808	276	3,084	3,145	204	3,349	265	—
Corn	—	8,516	8,516	—	4,245	4,245	—	4,271
Fruit, dried, Currants	—	490	490	—	701	701	211	—
„ „ Figs, Plums, and Prunes	—	274	274	—	423	423	149	—
„ „ Raisins	—	380	380	—	759	759	379	—
Spirits, Rum	—	343	343	—	427	427	84	—
„ Brandy	—	1,455	1,455	—	1,946	1,946	491	—
„ Geneva and other sorts	—	717	717	—	622	622	—	95
Sugar	174,213	37,195	211,408	205,135	37,342	242,477	31,069	—
„ Molasses	—	1,218	1,218	—	1,525	1,525	307	—
Tea	—	2,349	2,349	—	2,057	2,057	—	292
Tobacco and Snuff	45,371	3,152	48,523	54,984	1,263	56,247	7,724	—
Wine	—	2,082	2,082	—	2,376	2,376	294	—
Other articles taken collectively.	—	318	318	—	235	235	—	83
Total	222,392	59,332	281,724	263,264	54,264	317,528	35,804	

Office of the Inspector General of Imports and Exports,
Custom House, London, 28th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (F.)

AN ACCOUNT showing, in Quarterly and Annual Periods, the Net Receipt of Customs Duties in the United Kingdom in the Years 1868 and 1869, specifying the Receipt upon each of the principal Articles; and showing also the Increase or Decrease in the Receipt of the Year 1869, as compared with the Receipt in the Year preceding.

—	NET RECEIPT OF CUSTOMS DUTIES IN THE YEARS 1868 AND 1869.											
	Quarters ended				Year ended 31st Dec.	Quarters ended				Year ended 31st Dec.	Increase or Decrease in the Year 1869, as compared with the Year 1868.	
	31st March 1868.	30th June 1868.	30th Sept. 1868.	31st Dec. 1868.	1868.	31st March 1869.	30th June 1869.	30th Sept. 1869.	31st Dec. 1869.	1869.	Increase.	Decrease.
	£	£	£	£	£	£	£	£	£	£	£	£
Chicory	30,236	27,283	22,041	30,165	109,725	23,017	28,196	22,581	25,590	99,384	—	10,341
Cocoa, Cocoa Husks, and Chocolate	6,721	5,778	5,948	7,787	26,234	7,620	8,717	6,537	7,373	30,247	4,013	—
Coffee	106,049	91,057	89,578	92,858	379,542	80,119	102,631	89,909	87,864	360,523	—	19,019
Corn (Duty repealed from 1st June 1869)	188,221	213,189	222,188	231,983	855,581	230,572	105,411	Excess of re-paymt. £398	Excess of re-paymt, £483	335,102	—	520,479
Fruit, dried, Currants	47,494	51,930	53,729	123,505	276,658	38,955	72,978	62,992	105,622	280,547	3,889	—
——— Figs, Plums, and Prunes	5,070	2,391	1,854	21,018	30,333	7,544	3,992	3,937	25,901	41,374	11,041	—
——— Raisins	14,733	11,800	23,055	76,611	126,199	17,625	20,553	16,967	67,720	122,865	—	3,334
Spirits, Rum	568,211	395,346	390,968	652,844	2,007,369	529,649	411,469	368,589	605,943	1,915,650	—	91,719
——— Brandy	387,272	369,339	491,099	480,191	1,727,901	401,375	378,513	435,454	484,153	1,699,495	—	28,406
——— Geneva, and other Sorts	157,569	131,052	149,372	157,650	595,643	181,985	155,096	120,287	143,608	600,979	5,336	—
Sugar	1,266,597	1,437,680	1,447,358	1,278,894	5,430,529	1,232,405	1,342,953	1,458,208	1,366,816	5,400,382	—	30,147
——— Molasses	13,659	27,307	28,671	32,106	101,743	26,619	27,789	32,084	27,531	114,023	12,280	—
Tea	719,978	693,516	594,701	662,434	2,670,629	644,715	744,877	709,481	696,089	2,795,162	124,533	—
Tobacco and Snuff	1,677,048	1,569,244	1,593,023	1,690,913	6,530,228	1,643,300	1,643,542	1,628,905	1,669,986	6,585,733	55,505	—
Wine	381,907	376,051	355,402	405,753	1,519,113	384,179	393,186	348,237	384,144	1,509,746	—	9,367
Other Articles (taken collectively)	5,626	4,575	5,217	8,938	24,356	6,574	5,560	2,783	6,094	21,008	—	3,348
AGGREGATE RECEIPT	5,576,391	5,407,538	5,474,204	5,953,650	22,411,783	5,456,253	5,445,463	5,306,553	5,703,951	21,912,220	—	499,563

Office of the Inspector General of Imports and Exports,
Custom House, London, 28th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (G.)

A STATEMENT showing the Gross Receipt and Net Produce of the Customs Revenue of the United Kingdom in each Financial Year from 1858 to 1869, inclusive, with the Charges of Collection thereon, and the Rate per Cent. of Collection on the Gross Receipt and Net Produce respectively.

CUSTOMS REVENUE of the UNITED KINGDOM.

Years ended 31st March.	Gross Receipt.	Net Produce after deducting Drawbacks, Repayments on Over-entries, &c.	Charges of Collection.	Rate per Cent. of Collection	
				On the Gross Receipt.	On the Net Produce.
	£	£	£	£ s. d.	£ s. d.
1858 -	23,603,770	23,275,743	843,757	3 11 6	3 12 6
1859 -	24,376,169	23,998,380	838,203	3 8 9	3 9 10
1860 -	24,789,793	24,391,084	823,284	3 6 5	3 7 6
1861 -	23,516,821	23,278,250	769,663	3 5 5	3 6 1
1862 -	23,937,772	23,692,955	733,208	3 1 3	3 1 11
1863 -	24,339,083	24,038,893	726,517	2 19 8	3 0 5
1864 -	23,569,101	23,234,356	741,791	3 2 11	3 3 10
1865 -	23,004,762	22,775,662	759,207	3 6 0	3 6 8
1866 -	22,294,920	22,076,457	772,888	3 9 4	3 10 0
1867 -	23,670,593	23,407,350	784,453	3 6 3	3 7 0
1868 -	24,389,963	24,099,617	793,413	3 5 1	3 5 10
1869 -	24,248,417	23,921,716	802,967	3 6 3	3 7 1

The Gross and Net Receipt of Customs as shown for the last five years of this Statement include the Duty collected, on behalf of the Inland Revenue, on the delivery for Home Consumption of British Spirits, deposited in the Customs Warehouses, under Act 27 28 Vict. c. 11. The Charges of Collection for those Years include the Cost of collecting that Duty.

The Gross Amount of Duty so collected during each Year, was as under :—

Year ended 31st March	1865 - - -	£293,689
" "	1866 - -	808,718
" "	1867 - - -	1,129,899
" "	1868 - -	1,434,771
" "	1869 - -	1,522,385

Office of the Inspector General of Imports and Exports,
Custom House, London, 22d March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (H.)

AN ACCOUNT showing the Quantities of Raw Cotton imported into the United Kingdom in the Year 1869, distinguishing the Countries from which imported.

Countries from which imported.	Quantities of Cotton Wool imported into the United Kingdom in the Year 1869.
	Cwts.
Russia: Ports on the Black Sea and Sea of Azof	5
Sweden: Ports without the Baltic	193
Prussia	59
Hamburg	889
Bremen	2,151
Holland	1,887
Belgium	2,153
France: Ports without the Mediterranean	31,243
Ports within the Mediterranean	481
Portugal Proper	9,156
Spain: Ports without the Mediterranean	3,060
Ports within the Mediterranean	76
Italy: Sicily	159
Venetia	226
Illyria, Croatia, and Dalmatia	1,473
Malta	1,622
Greece	571
Turkey, European	31,111
Natolia or Asia Minor	72,866
Syria and Palestine	11,868
Egypt, Ports on the Mediterranean	1,432,568
Africa: Morocco	15
British Possessions on the River Gambia	82
Sierra Leone	7
British Possessions on the Gold Coast	20,622
West Coast, not particularly designated	3,036
Ascension	444
Cape of Good Hope	9
Natal	4,673
Mauritius	1,291
British India: Bombay and Scinde	2,994,901
Madras	840,128
Bengal and Pegu	448,744
Straits Settlements (Singapore, &c.)	232
Ceylon	14,007
French Possessions in India	2,330
Phillippine Islands	5
China	4
Australia: New South Wales	7,664
Queensland	12,181
New Zealand	6,530
Society Islands	458
British North America: Canada	1,551
Bermudas	3,152

APPENDIX (H.)—*continued.*

Countries from which imported.		Quantities of Cotton Wool imported into the United Kingdom in the Year 1869.
		Cwts.
British West India Islands :	Bahamas	645
	Jamaica	710
	St. Christopher	712
	Nevis	91
	Antigua	2,869
	St. Vincent	1,497
	Barbadoes	576
	Grenada	750
	Tobago	113
	Trinidad	4,631
British Guiana :	Demerara	2,511
	Berbice	34
British Honduras		106
Foreign West Indies :	Cuba	6,744
	Porto Rico	2,669
	Curaçoa	537
	St. Thomas	176
	Dutch Guiana	40
	Hayti and St. Domingo	10,316
United States of America:	Ports on the Atlantic, Northern	1,147,400
"	" Southern	2,936,162
Mexico :	Ports on the Atlantic	362
Central America:	Ports on the Atlantic	280
New Granada:	Ports on the Atlantic	70,827
	Ports on the Pacific	11
Venezuela		1,352
Ecuador		360
Peru		6,667
Chili		24,323
Brazil		709,089
Argentine Confederation		1,645
	Total	10,900,088

Office of the Inspector General
of Imports and Exports,
Custom House, London, 22d March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (I.)

AN ACCOUNT of the computed Real Value of the Imports and Exports of Gold and Silver Bullion and Specie registered in the Year ended 31st December 1869.

Countries from and to which Imported and Exported.	Imported into the United Kingdom.			Exported from the United Kingdom.		
	Gold.	Silver.	Total.	Gold.	Silver.	Total.
	£	£	£	£	£	£
Russia	3,285	—	3,285	—	—	—
Sweden	389	—	389	102,126	89,460	191,586
Hanse Towns	25,481	397,044	422,525	19,459	372,448	391,907
Holland	257	508,181	508,438	18,584	78,999	97,583
Belgium	1,937	70,337	72,274	—	431,007	431,007
France	695,851	1,791,820	2,487,671	4,194,430	3,416,723	7,611,153
Portugal, Azores, and Madeira	4,429	73,735	78,164	59,902	—	59,902
Spain and Canaries	7,537	8,374	15,911	4,148	—	4,148
Gibraltar	53,137	44,046	97,183	48,672	74	48,746
Malta	172,093	1,293	173,386	190,491	4,336	194,827
Turkey	3,294	—	3,294	888	—	888
Egypt	27,343	15,715	43,058	1,536,769	2,360,577	3,897,346
West Coast of Africa	100,214	839	101,053	15,567	19,801	35,368
British Possessions in South Africa	2,022	7,479	9,501	44,293	—	44,293
British India (including Singapore and Ceylon).	37,380	—	37,380	195	—	195
China (including Hong Kong)	780	836	1,616	—	727,636	727,636
Japan	—	—	—	—	100,475	100,475
Australia	7,892,757	5,441	7,898,198	20,372	12,136	32,508
British North American Provinces	76,000	12,457	88,457	324,226	—	324,226
Mexico, South America (except Brazil), and West Indies.	1,960,683	2,533,107	4,493,790	377,889	281,051	658,940
Brazil	868,907	123,127	992,034	447,229	5	447,234
United States of America	1,828,694	1,109,739	2,938,433	1,049,947	1,770	1,051,717
Other Countries	8,342	26,609	34,951	18,512	7,331	25,843
Total	13,770,812	6,730,179	20,500,991	8,473,699	7,903,829	16,377,528

Office of the Inspector General of Imports and Exports,
Custom House, London, 25th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (K.)

Port of London.

A Statement showing the Number of Payments for Duties in Cash and Bank Notes, by Traders' Cheques upon Bankers, and by the Transfer or Customs Note; also, an Average Amount of the daily Receipts by each Mode of Payment; for the Years 1859 to 1869 inclusive.

Year ended 31st December	Total Number of Receipts.	Total Amount of the Year's Receipts.	No. of Payments made in Cash and Bank Notes.	Amount of Duty received in Cash and Bank Notes.	No. of Payments made by Exchequer Bills.	Amount of Duty received by Exchequer Bills.	No. of Payments made by Traders' Cheques.	Amount of Duty received by Traders' Cheques.	No. of Payments made by Customs Cheques.	Amount of Duty received by Customs Cheques.
		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.
1859 (being 310 secular days)	164,103	12,758,949 3 2	102,157	3,151,489 8 7	—	—	35,456	3,844,064 6 1	26,490	5,763,395 13 6
1860 (being 310 secular days)	149,492	11,823,975 0 6	89,928	2,385,491 19 2	—	—	33,694	3,630,734 11 5	25,870	5,807,748 9 11
1861 (being 310 secular days)	154,715	11,956,884 19 11	94,056	2,455,669 1 6	—	—	33,099	3,616,149 9 8	27,560	5,885,066 8 9
1862 (being 310 secular days)	153,851	12,199,131 14 4	92,320	2,152,725 4 6	—	—	33,804	3,790,574 16 7	27,727	6,255,831 13 3
1863 (being 309 secular days)	156,775	12,014,617 6 2	93,844	2,035,531 2 5	—	—	33,777	3,798,556 6 8	29,154	6,180,529 17 1
1864 (being 311 secular days)	162,948	11,537,587 18 1	97,085	2,080,000 17 2	170	307,585 8 0	33,407	3,050,577 18 8	32,286	6,099,423 14 3
1865 (being 309 secular days)	163,756	11,014,385 12 1	98,190	2,087,574 7 9	78	166,390 13 11	35,391	3,239,441 5 4	30,097	5,520,979 5 1
1866 (being 310 secular days)	169,430	10,601,958 11 2	102,828	2,231,590 17 4	15	13,655 19 2	35,219	2,909,011 14 6	31,368	5,447,700 0 2
1867 (being 310 secular days)	169,600	10,901,391 15 10	99,669	1,899,689 12 8	—	—	36,341	3,073,867 14 5	33,590	5,937,834 8 9
1868 (being 311 secular days)	172,994	10,780,727 6 9	100,815	1,815,254 10 5	—	—	38,289	3,124,961 9 2	33,890	5,840,511 7 2
1869 (being 310 secular days)	173,141	10,583,255 4 7	98,664	1,585,489 4 1	5	5,559 4 3	38,521	2,967,208 17 9	35,956	6,024,997 18 6
Daily Average, 1859	529	41,158 0 0	330	10,166 0 0	—	—	114	12,400 0 0	85	18,591 0 0
" " 1860	482	38,142 0 0	290	7,695 0 0	—	—	109	11,712 0 0	83	18,735 0 0
" " 1861	499	38,570 0 0	303	7,921 0 0	—	—	107	11,665 0 0	89	18,984 0 0
" " 1862	496	39,352 0 0	298	6,944 0 0	—	—	109	12,227 0 0	89	20,180 0 0
" " 1863	507	38,882 0 0	304	6,587 0 0	—	—	109	12,293 0 0	94	20,001 0 0
" " 1864	524	37,098 0 0	312	6,688 0 0	—	—	108	9,809 0 0	103	19,612 0 0
" " 1865	530	35,645 0 0	318	6,756 0 0	—	—	115	10,484 0 0	97	17,867 0 0
" " 1866	547	34,200 0 0	332	7,198 0 0	—	—	114	9,384 0 0	101	17,573 0 0
" " 1867	547	35,165 0 0	322	6,095 0 0	—	—	117	9,916 0 0	108	19,154 0 0
" " 1868	556	34,664 10 0	324	5,836 15 0	—	—	123	10,048 10 0	109	18,779 15 0
" " 1869	558	34,139 10 0	318	5,114 0 0	—	—	124	9,571 12 9	116	19,435 3 6
Average of each Receipt, 1859				30 17 0	—	—	—	108 9 0	—	217 11 3
" " 1860				26 10 6	—	—	—	107 15 0	—	224 10 0
" " 1861				26 2 0	—	—	—	109 5 0	—	213 7 0
" " 1862				23 6 0	—	—	—	112 3 6	—	225 15 0
" " 1863				21 13 10	—	—	—	112 9 3	—	212 0 0
" " 1864				21 8 6	—	1,809 0 0	—	91 6 3	—	188 18 4
" " 1865				21 5 0	—	2,133 0 0	—	91 10 8	—	183 8 9
" " 1866				21 14 0	—	900 0 0	—	82 12 0	—	173 15 0
" " 1867				18 19 0	—	—	—	84 12 0	—	176 15 0
" " 1868				18 0 0	—	—	—	81 12 0	—	172 5 0
" " 1869				16 0 0	—	1,112 0 0	—	77 0 0	—	167 10 0

Receiver General's Office, 31st March 1870.

C. S. CARTWRIGHT, Assistant Receiver General.

APPENDIX (L.)

AN ACCOUNT of the Tonnage, distinguishing British from Foreign, entered Inwards and cleared Outwards in the United Kingdom during each Year from 1860 to 1869, both inclusive.

Years.	Entered Inwards.			Cleared Outwards.			Total of Ships entered Inwards and Outwards.
	British.	Foreign.	Total.	British.	Foreign.	Total.	
	Tonnage.	Tonnage.	Tonnage.	Tonnage.	Tonnage.	Tonnage.	Tonnage.
1860 -	6,889,009	5,283,776	12,172,785	7,025,914	5,490,593	12,516,507	24,689,292
1861 -	7,721,035	5,458,554	13,179,589	7,699,497	5,716,555	13,416,052	26,595,641
1862 -	7,856,639	5,234,451	13,091,090	8,090,221	5,354,128	13,444,349	26,535,439
1863 -	8,430,146	4,825,917	13,256,063	8,589,246	4,893,424	13,482,670	26,738,733
1864 -	9,028,100	4,486,911	13,515,011	9,173,575	4,515,923	13,689,498	27,204,509
1865 -	9,623,432	4,694,454	14,317,886	9,735,523	4,843,683	14,579,206	28,897,092
1866 -	10,692,102	4,920,068	15,612,170	10,563,624	5,086,656	15,650,280	31,262,450
1867 -	11,197,865	5,140,952	16,338,817	11,172,205	5,245,090	16,417,295	32,756,112
1868 -	11,225,917	5,396,758	16,622,675	11,434,507	5,623,797	17,058,304	33,680,979
1869 -	11,721,897	5,476,427	17,198,324	12,067,270	5,644,687	17,711,957	34,910,281

22d April 1870.

W. WYBROW, Collector.

APPENDIX(M.)

Registered Tonnage of the British Empire.

Table 1.—New Vessels Built and Registered during each Year from 1860 to 1869, both inclusive.

Year ending 5th January.	United Kingdom		Channel Islands.		British Plantations.		Total in British Empire.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1860 -	959	185,970	31	3,041	605	93,307	1,575	282,318
1861 -	1,016	211,968	31	2,442	675	104,418	1,722	318,828
1862 -	1,186	310,900	38	3,927	699	136,707	1,923	451,534
1863 -	1,285	351,427	46	4,732	759	161,467	2,090	507,626
1864 -	1,514	626,756	38	4,018	1,237	340,424	2,789	971,198
1865 -	1,518	607,281	44	10,205	1,387	359,364	2,949	976,850
1866 -	1,417	470,016	55	8,314	1,262	258,169	2,734	736,499
1867 -	1,305	327,671	23	5,120	852	133,108	2,180	465,899
1868 -	1,111	379,573	24	3,301	713	132,984	1,848	515,858
1869 -	1,012	368,576	28	3,867	642	122,410	1,682	494,853

22d April 1870.

W. WYBROW, Collector.

APPENDIX (N.)

Registered Tonnage of the British Empire.

Table 2.—Aggregate Number of Registered Vessels existing on the Registry in each Year from 1860 to 1869, both inclusive.

Year ended 31st December.	United Kingdom.		Channel Islands.		British Plantations.		Total in British Empire.		
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Men.
1860 -	26,764	4,586,742	899	71,945	10,838	1,052,281	38,501	5,710,968	294,460
1861 -	27,142	4,735,491	896	71,335	10,830	1,088,543	38,868	5,895,369	299,861
1862 -	27,525	4,860,191	915	74,209	10,987	1,106,958	39,427	6,041,358	304,171
1863 -	27,750	5,251,757	887	76,316	11,558	1,296,330	40,195	6,624,403	326,366
1864 -	27,737	5,542,878	895	84,622	12,235	1,475,761	40,867	7,103,261	341,499
1865 -	27,868	5,666,873	919	93,436	12,477	1,562,295	41,264	7,322,604	350,023
1866 -	28,072	5,692,010	899	87,327	11,941	1,518,647	40,912	7,297,984	346,799
1867 -	27,918	5,670,350	855	83,623	12,169	1,523,125	40,942	7,277,098	346,606
1868 -	27,635	5,698,774	809	81,756	11,897	1,456,386	40,341	7,236,916	340,516
1869 -	26,389	5,634,727	770	78,944	*11,921	1,456,078	39,080	7,169,749	334,853

* Several returns for 1869 not having been received, these accounts will be corrected next year.

22d April 1870.

W. WYBROW, Collector.

APPENDIX (O.)—No. 1.

A STATEMENT showing the Declared Value of British and Irish Produce and Manufacture exported to the United States of America in the Years 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, and 1869, specifying the Principal Articles.

Articles.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	Increase or Decrease in 1869 as compared with 1868.		Increase or Decrease in 1869 as compared with 1860.	
											Increase.	Decrease.	Increase.	Decrease.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Alkali, soda	526,806	205,893	453,094	356,574	384,259	498,997	995,530	801,746	716,473	655,588	—	60,885	128,782	—
Arms, ammunition, and military stores:—														
Fire-arms (small) and parts of fire-arms	30,989	108,015	993,820	409,679	18,924	13,157	54,203	37,329	18,920	34,491	15,571	—	3,502	—
Gunpowder	1,636	315	180	226	2,015	46	857	620	1,300	—	—	1,300	—	1,636
Of all other kinds	14,209	11,688	7,201	17,422	18,304	11,499	28,346	30,710	22,650	30,454	7,804	—	16,245	—
Beer and ale	100,375	31,452	31,446	33,053	43,411	55,524	81,405	93,516	94,878	103,158	8,280	—	2,783	—
Coals and culm	192,779	248,020	202,012	170,529	129,470	118,430	83,991	86,059	72,554	53,152	—	19,402	—	139,627
Cotton, piece goods	3,849,915	1,254,345	1,842,338	1,611,764	1,678,440	3,011,832	3,295,496	2,238,664	1,883,376	2,453,621	570,245	—	—	1,396,294
„ thread for sewing	313,654	140,587	244,161	280,330	214,050	262,377	373,024	359,434	435,122	445,567	10,445	—	131,913	—
Earthenware and porcelain	654,283	216,998	320,916	356,329	398,338	452,452	790,568	711,349	640,558	741,452	100,894	—	87,169	—
Haberdashery and millinery	1,347,268	628,383	623,576	665,609	761,778	937,012	1,121,389	850,906	711,918	754,806	42,888	—	—	592,462
Hardware and cutlery	1,051,908	651,456	462,100	429,011	472,962	639,011	1,154,025	837,223	637,528	739,820	102,292	—	—	315,088
Linen, piece goods	1,893,427	642,696	1,694,046	2,076,761	2,481,199	3,695,362	4,171,989	2,748,329	2,588,253	3,000,868	412,615	—	1,107,441	—
„ thread	172,560	85,845	203,152	200,228	187,560	149,460	229,220	161,882	160,709	143,268	—	17,441	—	29,292
Metals:—														
Copper, sheets, nails, &c.	58,338	14,154	26,634	16,347	16,426	42,290	43,720	15,339	9,944	7,364	—	2,580	—	50,974
Iron, pig	229,283	88,687	61,819	129,063	215,429	211,648	315,415	368,015	231,563	395,445	143,882	—	166,162	—
„ Bar, bolt, and rod	735,121	176,945	392,456	517,697	731,805	258,257	571,762	374,269	347,159	434,023	86,864	—	—	301,098
„ Railway, of all kinds	916,361	176,897	89,130	419,625	831,952	426,799	858,402	1,239,773	1,987,128	2,250,032	262,904	—	1,333,671	—
„ Cast	23,431	11,338	11,769	28,911	16,544	5,908	19,489	12,223	10,667	16,715	6,048	—	—	6,716
„ Hoops, sheets, and boiler plates.	299,443	81,296	159,956	191,283	222,175	119,567	342,588	319,501	193,321	343,625	150,304	—	44,182	—

Articles.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	Increase or Decrease in 1869 as compared with 1868.		Increase or Decrease in 1869 as compared with 1860.	
											Increase.	Decrease.	Increase.	Decrease.
Metals—*cont.*	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Iron, Wrought of all kinds.	193,148	92,504	132,317	209,978	258,371	165,473	228,672	134,095	86,963	140,445	53,482	—	—	59,003
Iron, Steel, unwrought	653,058	308,300	468,809	531,249	493,244	366,683	692,973	616,492	544,493	513,713	—	30,780	—	139,345
Lead, pig and lead shot	88,531	16,156	262,346	51,016	251,809	167,439	173,069	147,179	140,417	110,002	—	30,415	21,471	—
Tin plates	1,018,536	417,360	688,201	746,454	658,218	975,406	1,434,055	1,390,064	1,476,899	1,744,279	267,380	—	725,743	—
Oil seeds	74,775	1,960	7,885	3,634	45,489	72,038	364,594	199,575	24,438	10,603	—	13,835	—	64,172
Salt	119,993	78,766	63,231	26,977	36,619	70,273	101,618	103,647	91,831	107,934	16,103	—	—	12,059
Silk manufactures:—														
Stuffs, handkerchiefs, and ribbons.	124,206	95,833	110,850	128,543	119,873	117,948	181,654	94,978	91,476	107,529	16,053	—	—	16,677
Other articles of silk only	114,590	24,470	85,174	87,934	75,831	130,311	99,787	45,247	113,353	76,370	—	36,783	—	38,020
Mixed with other materials.	219,565	64,226	16,169	19,153	39,093	44,478	85,687	77,096	83,545	97,418	13,873	—	—	122,147
Spirits, British	66,322	18,039	33,218	14,713	11,229	16,741	18,480	11,932	16,970	15,495	—	1,475	—	50,827
Wool, sheep and lambs	7,245	71,886	92,536	38,828	16,300	31,410	13,700	1,484	41,190	231,499	190,309	—	224,254	—
Woollen manufactures:—														
Cloths, coatings, &c.	629,017	393,423	689,878	670,512	709,765	572,092	937,007	552,681	450,157	545,854	95,697	—	—	83,163
Worsted stuffs	2,424,893	1,038,424	1,141,996	2,003,690	2,058,103	3,785,223	3,581,459	2,234,016	2,677,205	2,623,309	—	53,896	198,416	—
Carpets and druggets	330,140	126,954	237,204	268,318	270,442	385,841	788,100	630,102	531,070	853,796	322,726	—	493,656	—
All other articles	3,151,960	1,541,763	2,478,250	2,632,952	2,839,158	3,536,372	5,267,330	4,300,233	4,277,604	4,842,416	564,812	—	1,690,456	—
	21,667,065	9,064,504	14,327,870	15,344,302	16,708,505	21,227,956	28,499,514	21,825,703	21,431,632	24,624,311	3,461,471	268,792	6,375,846	3,418,600
											268,792		3,418,600	
										Net increase in 1869 as compared with 1868	3,192,679		2,957,246	Net increase in 1869 as compared with 1860.

Office of the Inspector General of Imports and Exports,
Custom House, London, 25th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (O.)—No. 2.

An Account of the Computed Real Value of the Imports into the United Kingdom from the United States, for the Years 1867, 1868, and 1869, respectively.

	Ports on Atlantic.						Ports on Pacific.			Total from United States.		
	1867.		1868.		1869.							
	Northern States.	Southern States.	Northern States.	Southern States.	Northern States.	Southern States.	1867.	1868.	1869.	1867.	1868.	1869.
	£	£	£	£	£	£	£	£	£	£	£	£
1st Quarter -	4,104,339	4,470,838	4,458,078	6,611,115	3,869,348	5,340,638	330,471	1,093,270	578,067	8,905,648	12,162,463	9,788,053
2d „ -	6,459,609	9,947,021	6,125,715	10,492,214	4,575,232	7,100,514	467,834	778,890	400,039	16,874,464	17,396,819	12,075,785
3d „ -	3,789,556	2,837,329	3,015,084	2,004,110	4,841,411	2,887,940	625,222	318,861	536,459	7,252,107	5,338,055	8,265,810
4th „ -	6,355,390	1,248,478	5,315,159	2,729,076	8,430,963	3,597,198	409,870	120,727	362,118	8,013,738	8,164,962	12,390,279
Total -	20,708,894	18,503,666	18,914,036	21,836,515	21,716,954	18,926,290	1,833,397	2,311,748	1,876,683	41,045,957	43,062,299	42,519,927

Office of the Inspector General of Imports and Exports,
Custom House, London, 25th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (P.)—No. 1.

AN ACCOUNT showing the Quantity of Tea imported into the United Kingdom in each Year from 1860 to 1869 inclusive, specifying the Quantity imported severally into London, Liverpool, and Ports other than London and Liverpool; also the relative Per-centage of the parts of the whole.

YEARS.	Quantity of Tea imported into the United Kingdom.	Quantity of Tea imported into the Port of London.	Quantity of Tea imported into Liverpool.	Quantity of Tea imported into Ports other than London and Liverpool.	Per-centage of Import taken by London.	Per-centage of Import taken by Liverpool.	Per-centage of Import taken by Ports other than London and Liverpool.
	lbs.		lbs.	lbs.			
1860 -	88,946,636	84,401,976	4,116,236	428,424	94.89	4.63	.48
1861 -	96,577,183	87,431,870	8,011,140	1,134,173	90.53	8.29	1.18
1862 -	114,787,440	109,750,188	4,018,815	1,018,437	95.61	3.50	.89
1863 -	136,803,218	132,186,194	4,571,759	47,265	96.62	3.34	.04
1864 -	124,359,243	122,335,601	1,975,400	48,242	98.37	1.59	.04
1865 -	121,156,712	116,965,422	3,700,824	490,466	96.54	3.05	.41
1866 -	139,610,044	136,774,261	2,747,647	88,136	97.97	1.97	.06
1867 -	128,028,726	126,648,931	1,300,915	78,880	98.93	1.02	.05
1868 -	154,845,863	153,276,068	1,515,908	53,887	98.99	.98	.03
1869 -	139,223,298	138,151,202	1,019,241	52,855	99.23	.73	.04

Examiner's Office, Custom House, London,
1st April 1870.

W. W. TAYLOR.

APPENDIX (P.)—No. 2.

AN ACCOUNT showing the Quantity of Tea annually entered for Home Consumption in the United Kingdom, with the average rate and aggregate Amount of Duty collected thereon, specifying the Quantity entered in London, the Amount of Duty thereon, the Quantity entered in Ports other than London, and the Amount of Duty thereon, and severally, the relative Per-centage of Import and Per-centage of Duty collected, from the Year 1860 to 1869 inclusive.

YEARS.	Quantity of Tea entered for Home Consumption in the United Kingdom.	Amount of Duty received thereon.	Average rate of Duty per lb. paid on Year's Consumption.	Average price per lb. in Bond.	Quantity of Tea entered for Home Consumption in the Port of London.	Amount of Duty received thereon.	Quantity of Tea entered for Home Consumption in Ports other than London.	Amount of Duty received thereon.	Per-centage of Import Port of London.	Per-centage of Import into Ports other than London.	Per-centage of Duty collected in Port of London.	Per-centage of Duty collected in Ports other than London.
	lbs.	£	s. d.	s. d.	lbs.	£	lbs.	£	lbs.	lbs.	£	£
1860 - -	76,842,016	5,442,923	1 5	1 6¾	45,961,045	3,255,489	30,880,971	2,187,434	94.89	5.11	59.81	40.19
1861 - -	77,949,464	5,521,320	1 5	1 5	47,017,353	3,330,282	30,932,111	2,191,038	90.53	9.47	60.32	39.68
1862 - -	78,817,060	5,582,793	1 5	1 7$\frac{3}{16}$	48,447,133	3,431,376	30,369,927	2,151,217	95.61	4.39	61.47	38.53
1863 - -	85,206,779	4,652,822	1 1$\frac{1}{16}$	1 6$\frac{11}{16}$	52,782,908	2,884,688	32,423,871	1,768,134	96.62	3.38	62.	38.
1864 - -	88,637,099	4,431,868	1 0	1 6¼	56,124,794	2,806,215	32,512,305	1,625,653	98.37	1.63	63.32	36.68
1865 - -	97,921,944	3,189,282	0 7$\frac{5}{8}$	1 7$\frac{7}{8}$	61,010,917	1,998,094	36,911,027	1,191,188	96.54	3.46	62.65	37.35
1866 - -	102,324,887	2,558,148	0 6	1 7¼	65,347,426	1,633,674	36,977,641	924,480	97.97	2.03	63.86	36.14
1867 - -	111,059,387	2,776,520	0 6	1 6$\frac{7}{8}$	73,408,940	1,835,224	37,650,447	941,296	98.93	1.07	66.1	33.9
1868 - -	106,918,069	2,672,978	0 6	1 7¼	72,817,102	1,820,443	34,100,967	852,535	98.99	1.01	68.1	31.9
1869 - -	111,887,438	2,797,219	0 6	1 5¾	76,858,474	1,921,460	35,028,984	875,759	99.23	.77	68.69	31.31

Examiner's Office, Custom House, London,
1st April 1870.

W. W. TAYLOR.

APPENDIX (Q.)—No. 1.

A STATEMENT showing the Declared Value of British and Irish Produce and Manufacture exported to France in the Years 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, and 1869, specifying the Principal Articles.

Articles.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	Increase or Decrease in 1869 as compared with 1868.		Increase or Decrease in 1869 as compared with 1860.	
											Increase.	Decrease.	Increase.	Decrease.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Alkali, soda - - -	9,432	26,658	39,231	61,300	65,878	61,037	45,611	44,686	62,585	62,731	146	—	53,299	—
Apparel and haberdashery	44,418	118,215	195,514	182,048	125,026	162,684	157,504	88,154	89,401	123,079	33,678	—	78,661	—
Beer and ale - -	14,428	16,231	19,427	29,173	26,612	28,263	32,750	44,880	24,704	29,312	4,608	—	14,884	—
Caoutchouc, manufactures of - - - -	18,472	34,775	72,757	91,580	126,116	134,159	128,592	123,144	116,065	135,665	19,600	—	117,193	—
Cement - - -	32,979	42,701	44,426	54,257	99,319	62,745	55,514	76,535	60,570	74,916	14,346	—	41,937	—
Coals, cinders, and culm -	564,243	617,891	611,942	543,738	623,139	722,748	905,453	937,178	872,568	869,137	—	3,431	304,894	—
Corn, wheat - - -	5,644	963,707	18,727	78,978	20,371	8,590	129,864	231,476	78,893	25,418	—	53,475	19,774	—
„ wheatflour - -	9	78,743	828	2,815	12	37	—	1,481	2,908	15	—	2,893	6	—
Cotton yarn - - -	50,459	187,228	245,807	178,467	168,010	286,430	535,904	581,765	256,366	242,018	—	14,348	191,559	—
„ piece goods - -	206,849	478,327	548,381	452,128	520,846	599,348	1,294,820	959,020	928,517	987,277	58,760	—	780,428	—
„ hosiery small wares	41,412	83,554	190,256	103,991	118,142	133,875	177,493	137,321	176,799	207,800	31,001	—	166,388	—
Drugs and chemical products - - -	16,263	36,069	80,079	101,221	100,126	95,754	107,760	129,953	96,063	120,197	24,134	—	103,934	—
Earthenware and porcelain	7,377	21,518	54,359	51,701	53,937	52,503	43,355	44,528	35,473	33,615	—	1,858	26,238	—
Hardwares and cutlery -	118,265	201,410	250,027	200,240	218,469	254,073	241,789	240,736	208,368	228,879	20,511	—	110,614	—
Horses - - -	94,740	50,135	79,676	77,197	55,543	55,519	34,754	73,324	74,174	35,929	—	38,245	—	58,811
Linen yarns - - -	70,620	104,469	99,244	175,052	129,273	311,607	254,606	277,348	236,579	230,505	—	6,074	159,885	—
„ piece goods - -	61,097	181,066	189,015	180,982	205,830	191,701	272,705	250,501	178,259	191,323	13,064	—	130,226	—
Machinery, steam engines -	13,002	12,867	13,474	17,966	8,180	18,959	30,121	58,665	30,883	15,821	—	15,062	2,819	—
„ other sorts -	158,018	349,115	339,268	345,866	365,439	359,034	427,964	447,454	349,929	301,303	—	48,626	143,285	—
Metals, copper, wrought and unwrought - -	548,072	316,199	338,549	856,388	348,913	334,282	432,561	318,834	350,623	331,226	—	19,397	—	216,846
„ iron, wrought and unwrought -	370,381	794,699	1,178,485	835,643	630,787	637,469	603,828	589,886	504,053	704,440	200,387	—	334,059	—
„ lead and shot -	21,197	13,889	10,261	16,686	70,476	94,424	43,490	44,840	62,716	57,972	—	4,744	33,775	—
„ tin, unwrought -	115,123	98,777	107,572	147,759	145,412	106,358	120,225	124,088	104,048	187,951	83,903	—	72,828	—

Articles.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	Increase or Decrease in 1869 as compared with 1868.		Increase or Decrease in 1869 as compared with 1860.	
											Increase.	Decrease.	Increase.	Decrease.
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Metals, tin plates	36,076	38,563	55,192	59,326	59,411	65,127	40,691	74,148	40,261	43,038	2,777	—	6,962	—
„ zinc, wrought and unwrought	31,270	7,238	20,211	934	7,519	3,071	12,503	8,508	38,195	78,316	45,121	—	47,046	—
Naphtha, Paraffine Oil, &c.	19,149	46,428	61,143	109,831	81,515	43,748	71,235	34,656	30,595	70,690	40,095	—	51,541	—
Oil, seed	342,921	317,879	262,644	162,342	261,088	377,638	173,625	117,704	175,100	184,617	9,517	—	—	157,404
Painters' colours	34,082	55,270	41,145	30,099	38,602	35,780	35,099	38,366	38,968	42,532	3,564	—	8,450	—
Silk, yarn	131,970	133,497	170,240	139,506	152,580	125,210	114,390	73,159	93,551	72,498	—	21,053	—	59,472
„ thrown	221,608	186,609	233,768	183,300	153,470	100,675	56,502	96,158	342,936	346,142	3,506	—	124,834	—
„ Manufactures	60,124	117,707	75,640	121,664	191,184	162,786	94,161	134,572	92,408	113,630	21,222	—	53,506	—
Spirits, British	49,610	216,232	43,598	37,802	80,096	4,132	1,353	1,055	1,833	1,847	14	—	—	47,763
Telegraph wire and apparatus	75,461	15,366	4,460	1,604	13,787	148	26,367	816	467	534,432	533,965	—	458,971	—
Wool, sheep and lambs'	573,091	782,098	385,073	348,773	318,301	312,446	542,368	359,637	349,064	380,292	31,228	—	—	192,799
Woollen yarn	233,828	235,782	372,324	369,129	340,640	423,151	397,547	556,305	893,561	705,573	—	187,988	471,745	—
Woollen manufactures, cloths, coatings, &c.	36,536	147,581	726,415	193,442	187,962	257,624	890,811	1,637,557	356,501	551,371	194,870	—	514,835	—
Woollen manufactures, worsted stuffs	234,161	773,385	927,644	1,094,940	1,020,610	1,332,286	1,681,725	1,279,631	1,187,425	1,337,576	150,151	—	1,103,415	—
Woollen manufactures, flannels and carpets	9,328	71,358	128,826	102,257	80,717	55,086	106,599	107,591	159,631	156,819	—	2,812	147,491	—
Woollen manufactures, of other sorts	13,614	44,076	36,028	28,346	29,910	40,828	106,759	86,313	204,751	137,898	—	66,853	124,284	—
All other articles	562,551	877,676	887,741	904,838	944,163	1,011,353	1,271,832	1,689,066	1,751,943	1,484,230	—	267,713	921,679	—
	5,249,980	8,895,588	9,209,367	8,673,309	8,187,361	9,062,095	11,700,140	12,121,010	10,652,784	11,438,330	1,540,168	754,572	6,921,445	733,095
											754,572	—	733,095	
														Net increase in 1869 as compared with 1860.
									Net Increase in 1869 as compared with 1868		785,596	—	6,188,350	

Office of the Inspector General of Imports and Exports,
Custom House, London, 23rd March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (Q.)—No. 2.

AN ACCOUNT of the Computed Real Value of the Imports into the United Kingdom from France, in the Years 1865, 1866, 1867, 1868, and 1869 respectively, distinguishing the principal Articles, exclusive of Corn, Meal, and Flour.

Articles.	Years.				
	1865.	1866.	1867.	1868.	1869.
Animals:	£	£	£	£	£
Oxen, Bulls, Cows, and Calves	308,096	773,476	315,139	95,337	430,478
Sheep and Lambs	78,104	116,387	12,468	481	15,661
Brass and bronze manufactures	71,459	63,038	80,431	63,561	66,868
Butter	1,867,085	2,276,493	2,265,147	2,156,824	2,231,450
China and porcelain ware	87,689	99,556	92,180	80,453	92,936
Clocks and watches; viz.—					
Clocks	159,472	190,321	198,136	215,310	224,624
Watches	249,662	241,341	178,040	183,677	183,057
Cotton, raw	200,740	501,178	113,595	60,590	187,227
Cotton manufactures	377,647	589,216	653,397	718,991	569,814
Cream of Tartar	89,242	106,632	62,298	62,393	78,142
Eggs	850,959	1,010,975	889,653	900,635	974,895
Flax, undressed	60,920	68,497	49,380	38,942	33,275
Flowers, artificial	295,272	291,269	301,544	336,789	358,376
Fruit, raw	122,150	129,368	224,157	194,659	168,612
Garancine	133,196	236,666	211,483	275,263	119,332
Glass, plate	96,095	105,449	123,827	133,355	131,044
Hides, tanned	224,614	320,512	257,336	265,429	226,901
Hops	86,891	121,206	452,312	149,776	69,383
Leather manufactures; viz.—					
Gloves	950,339	1,129,061	1,149,465	1,119,898	1,022,766
Boots and shoes	43,924	44,467	54,272	70,578	53,535
Boot fronts	5,934	9,238	11,155	4,579	7,862
Madder and madder root	188,889	247,945	242,634	236,539	70,068
Musical instruments of all sorts	162,311	164,743	192,343	201,607	177,541
Oil, rape	183,071	242,360	192,940	151,283	150,414
Oil-seed cakes	251,092	253,825	289,428	417,610	416,955
Oil or spirit of turpentine	264,274	137,177	84,423	51,539	18,228
Platting of straw, chip, or other materials	126,602	146,063	67,653	39,305	39,326
Potatoes	114,268	121,536	289,400	308,873	190,977
Resin	428,311	124,007	110,145	64,253	63,521
Seeds, clover	414,852	334,951	237,386	303,339	185,989
Silk, raw	3,050,007	2,494,869	2,658,498	2,504,466	1,448,513
,, waste; knubs and husks	403,230	181,435	133,921	247,310	179,110
,, thrown	113,133	100,898	402,817	839,077	569,653
Silk manufactures of Europe	6,781,577	7,551,997	7,016,401	8,396,079	8,994,314
Spirits, viz., brandy	826,422	1,401,013	1,365,612	1,294,873	1,233,711
Sugar, refined and unrefined	1,167,003	880,093	1,087,708	1,158,059	1,304,364
Wine	865,747	1,456,060	1,497,917	1,875,881	1,585,858
Wool, sheep and lambs'	132,288	309,526	177,121	73,620	142,044
Woollen manufactures	1,189,701	1,151,092	1,511,177	1,483,558	1,590,096
All other articles except corn	4,736,807	5,867,581	5,837,918	5,570,594	5,752,333
Total (exclusive of corn, meal, and flour)	27,759,075	31,591,517	31,090,857	32,345,385	31,359,253

Office of the Inspector General of Imports and Exports,
Custom House, London, 25th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (R.)—No. 1.

A STATEMENT showing the computed Real Value of Foreign and Colonial Merchandise Exported from the United Kingdom to the United States of America in the Years 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, and 1869 distinguishing the principal Articles.

Articles.	Computed Real Value.								
	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.
	£	£	£	£	£	£	£	£	£
Arms and ammunition	21,051	81,997	—	1,240	40	750	1,405	680	55
Bacon and hams	—	26	92	19,127	7,492	171,397	154	575	13,974
Bark, Peruvian	28,270	20,355	4,644	14,212	33,513	19,199	26,399	27,933	29,137
Caoutchouc	5,872	57,672	35,275	34,137	45,433	24,190	5,100	22,433	37,450
Cochineal	8,608	23,910	11,013	30,459	55,734	77,807	92,898	102,453	71,699
Coffee	337	28,329	6,297	56,331	54,151	9,157	13,211	2,985	5,349
Copper unwrought, and part wrought	3,873	9,854	25,973	42,461	—	38,860	207	—	—
Corn, Wheat	—	—	15	—	—	11,131	72,106	47	—
Cotton, raw:									
Produce of United States	183,876	1,365,127	835,887	603,949	31,234	32,544	13,374	2,697	4,321
„ Brazil	-	-	16,195	22,828	—	—	—	—	300
„ Egypt	-	6,692	25,442	25,997	21,764	18,610	2,945	15,695	25,417
„ British India	37,565	344,754	407,000	326,398	40,733	3,266	—	247	60
„ Other countries	-	9,341	87,225	191,874	9,724	—	—	1,122	1,024
Total	221,441	1,725,914	1,391,749	1,171,046	103,455	54,420	16,319	19,761	31,122
Gambier and Cutch	670	2,418	805	19,745	52,617	12,079	2,523	1,138	997
Gum, Arabic	19,361	40,370	16,457	14,294	47,688	62,414	66,041	48,279	35,356
„ of all other sorts	11,180	53,071	62,288	61,880	98,052	73,139	69,812	111,320	94,641
Hemp, dressed and undressed	3,236	68,340	76,176	30,311	113,418	175,252	14,311	7,292	8,315
Hides, untanned	1,674	41,811	26,106	8,231	38,567	71,536	64,557	28,370	53,354
Hops	280	8,910	915	8,206	5,027	58,551	32,736	8,842	1,275
Indigo	513,277	540,431	184,618	202,342	299,243	179,214	134,264	125,790	56,804
Iron in bars	12,447	29,860	66,266	59,093	33,903	58,880	34,414	38,082	49,322
Linen sails and manufactures	2,380	40,029	13,510	4,558	29,636	11,058	5,083	4,130	15,724
Liquorice juice and paste	1,200	28,881	22,147	30,377	22,557	21,871	25,567	31,069	22,074
Oil Turpentine	17,646	38,930	32,810	29,023	294	—	115	—	—
Opium	108,704	70,204	37,085	40,478	58,923	58,388	55,120	55,675	115,845
Pepper	8	35,711	458	41,797	16,288	1,128	3,323	5,681	919
Quicksilver	90	5,321	26,220	20,131	4,574	19,211	2,817	6,494	20,160
Rags for making paper	945	10,518	26,509	4,938	23,094	72,698	49,067	65,625	66,312
Rice	42,997	132,055	101,894	75,545	101,998	89,731	67,170	113,588	37,605
Saltpetre and nitre, cubic	1,760	96,220	22,538	35,736	22,840	17,278	5,301	21,760	7,875
Seeds, flax, and linseed	-	57,537	38,451	38,784	42,582	7,773	298	1,172	3
Silk, knubs or husks	-	36,614	1,266	449	1,018	1,327	—	—	107
„ raw	23,993	96,072	152,593	147,216	443,942	316,223	248,440	163,999	87,401
Silk manufactures	7,481	11,280	9,372	17,478	20,881	185,243	194,413	120,593	58,404
Skins, goat, raw and tanned	11,331	35,860	10,510	16,366	32,973	32,710	2,382	39,978	44,565
Tea	51,592	201,044	416,245	399,076	657,426	258,981	202,097	296,472	235,130
Teeth, elephants'	267	1,230	23,685	14,721	51,114	41,323	21,486	26,394	21,273
Tin, in blocks, ingots, &c.	6,530	26,508	11,052	3,966	93,823	20,085	22,822	19,444	40,350
Wool, sheep and lambs'	601,638	742,156	1,049,919	285,380	459,322	289,723	210,293	190,874	278,950
Other articles	228,042	407,469	452,436	495,927	869,263	861,595	531,873	661,291	621,829
Total	1,961,179	4,846,037	4,352,393	3,475,061	3,942,831	3,344,322	2,293,927	2,370,299	2,163,196

Office of the Inspector General of Imports and Exports, Custom House, London, 13th April 1870.

EDW. BERNARD, Inspector General.

APPENDIX (R.)—No. 2.

A STATEMENT showing the computed Real Value of Foreign and Colonial Merchandise Exported from the United Kingdom to France in the Years 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, and 1869, distinguishing the principal Articles.

Articles.	Computed Real Value.								
	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.
	£	£	£	£	£	£	£	£	£
Bacon and hams	1,281	59,456	99,081	35,664	1,178	1,807	20,152	5,258	938
Bark, Peruvian	43,760	28,394	18,833	20,198	22,294	20,079	22,613	39,703	30,452
Camphor, refined and unrefined	5,260	9,347	33,028	38,667	20,308	20,731	15,501	18,945	10,684
Caoutchouc	56,908	57,899	63,346	62,373	45,529	77,100	60,478	85,047	70,342
Cochineal	21,004	21,199	41,828	26,506	42,694	60,201	54,474	17,222	28,514
Cocoa	34,826	4,991	10,357	8,969	11,781	56,514	30,219	27,784	25,660
Coffee	124,033	405,013	482,467	322,669	522,995	638,296	485,014	715,484	528,006
Copper, unwrought and part wrought	145,890	361,125	271,748	461,491	543,456	776,073	582,575	799,304	492,743
Corn, wheat	579,836	20,317	23,983	1,901	3	6,815	71,027	56,310	6,329
„ wheat flour	204,545	89	5,540	1,128	64	880	397	92	145
Cotton, raw:									
Produce of United States	216,503	703,577	329,259	445,836	427,281	626,088	447,956	400,404	134,015
„ Brazil	2,951	87,085	50,820	48,082	51,388	200,768	54,156	37,856	7,051
„ Egypt	16,590	118,381	149,426	435,938	334,198	249,404	104,998	84,367	102,925
„ British India	135,882	2,810,636	1,582,548	3,463,217	3,855,631	3,577,728	986,462	1,169,029	955,916
„ Other countries	—	17,687	205,490	829,349	531,336	106,799	32,324	29,930	27,424
Total	371,926	3,737,366	5,317,543	5,240,422	5,199,883	4,760,787	1,625,836	1,721,586	1,227,331
Flax, dressed and undressed	42,129	8,867	26,994	33,616	49,500	46,954	48,964	115,334	72,679
Guano	43,571	7,563	11,637	6,289	575	2,970	11,041	4,099	138
Gum, lac, viz., shell-lac	21,356	57,893	33,111	53,691	24,929	21,270	16,010	21,176	24,418
Hair manufactures	177,656	231,404	92,793	49,299	109,448	30,434	26,015	12,630	8,850
Hemp, and other like substances (except jute)	33,508	19,722	27,730	35,430	38,501	20,174	22,536	37,459	40,345
Hemp, jute	54,353	82,160	183,266	257,034	300,287	317,468	275,015	302,786	285,062
Hides, untanned	38,594	32,873	86,428	101,051	42,801	84,693	53,300	17,257	23,590
Indigo	171,224	116,893	75,093	158,215	148,296	237,982	121,275	257,523	109,850
Oil, cocoa-nut	42,540	29,976	26,595	33,934	25,007	37,544	52,071	37,713	43,015
„ palm	4,700	3,322	33,812	23,608	28,791	39,488	31,785	71,531	62,074
Quicksilver	19,739	26,214	37,439	34,963	37,080	36,094	32,125	37,174	38,418
Rice	165,694	60,766	201,571	62,953	35,706	100,298	63,378	185,006	81,320
Seeds, flax, linseed, and rape-seed	205,973	73,091	180,154	196,746	227,886	256,156	424,481	125,851	132,560
„ for expressing oil therefrom	20,104	51,527	58,429	123,613	67,685	78,346	5,292	52,091	47,985
„ poppy	12,595	9,391	38,184	31,244	69,781	114,368	62,726	62,381	64,847
Silk, knubs or husks	13,043	25,257	9,240	7,086	22,679	209,901	72,020	14,812	78,103
„ raw	3,191,858	4,404,410	3,285,348	3,545,919	3,267,295	1,951,327	1,829,842	3,242,627	3,263,769
„ thrown	100,059	198,010	310,805	511,336	587,583	114,981	—	270	5,703
Skins, goat, raw and tanned	23,068	44,879	63,724	43,878	40,636	45,095	29,512	18,679	22,739
Sugar, unrefined	3,449	308	174,471	53,364	11,504	351	178	4,566	1,970
Tallow	189,792	147,702	5,947	699	1,235	7,139	10,246	18,055	4,790
Teeth, elephants'	61,708	61,811	64,752	81,874	77,472	95,910	85,138	71,479	87,073
Tin, unwrought	34,034	68,145	84,588	96,848	53,131	46,935	72,937	62,827	66,763
Wine	64,623	50,256	53,284	51,655	51,101	47,304	56,923	54,100	60,987
Wool, sheep and lambs'	1,502,436	1,350,735	2,190,434	3,053,176	3,663,124	3,651,171	3,749,735	3,721,373	3,860,729
Other articles	704,328	708,021	896,834	790,243	900,388	903,653	780,549	795,915	899,977
Total	8,531,083	12,556,302	14,621,257	15,638,042	16,202,977	14,897,289	10,901,410	12,861,449	11,838,898

Office of the Inspector General of Imports and Exports,
Custom House, London, 13th April 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (S.)

A RETURN of the Ports at which Cattle, &c. have been imported in the Year 1869, stating the Number imported at each Port.

Ports at which Imported.	Live Stock imported into the United Kingdom in the Year 1869.						
	Oxen and Bulls.	Cows.	Calves.	Sheep.	Lambs.	Swine and Hogs.	Aggregate of all Kinds.
	Number.	Number.	Number.	Number.	Number.	Number.	Number.
London	122,854	5,630	25,220	409,687	5,490	24,337	593,218
Bristol	2	—	—	—	—	86	88
Cardiff	3	7	2	—	—	—	12
Cowes	—	—	—	3	18	42	63
Dover	92	6	3	292	22	—	415
Falmouth	5,569	65	—	—	—	—	5,634
Goole	801	51	60	972	—	4,138	6,022
Grimsby	154	159	9	24,979	1	3,440	28,742
Hartlepool	861	3,293	18	39,794	23	777	44,766
Harwich	—	—	—	121,320	11,170	14,391	146,881
Hull	4,121	10,378	4,140	19,893	1,470	5,933	45,935
Littlehampton	1,694	—	—	112	—	188	1,994
Liverpool	4,820	7	1	1,283	7	522	6,640
Middlesborough	29	251	3	1,013	—	62	1,358
Newcastle	1,402	2,319	—	49,729	145	980	54,575
Newhaven	—	—	—	6	—	2	8
Newport	1	4	2	—	—	—	7
Penzance	55	—	—	—	—	—	55
Plymouth	6,357	201	31	8	1	14	6,612
Portsmouth	3,254	6	—	464	5	4,035	7,764
Shields, North	86	40	—	—	—	—	126
,, South	26	—	3	—	—	4	33
Southampton	9,380	422	21	1,686	9	9,929	21,447
Sunderland	142	76	—	8,978	4	178	9,378
Weymouth	15	—	—	—	—	—	15
Leith	2,574	154	2	10,952	6	5	13,693
Banff	—	—	—	1	—	—	1
Glasgow	272	—	—	—	—	4	276
Kirkwall	—	—	—	1	—	—	1
Dublin	3,013	28	1	299	—	—	3,341
Total	167,577	23,097	29,516	691,472	18,371	69,067	999,100

Office of the Inspector General of Imports and Exports, Custom House, London, 22d March 1870.

EDW. BERNARD, Inspector General.

APPENDIX (T.)

A STATEMENT for the Year to the 31st December 1869 of the total estimated Amount of Duties of Customs repealed or reduced, and imposed or augmented.

	Net Revenue.
	£
Duties repealed :—	
Corn, Grain, Meal, and Flour - - -	855,581
Arrowroot, Potato Flour, Sago, and other Farinaceous Substances charged with the same Duty as Meal and Flour - - - - - -	8,855
	864,436
Duties reduced :—	
Beer and Ale - - - - - -	1,251
Duties imposed or augmented :—	
Beer, Spruce - - - - -	114

Office of the Inspector General of Imports and Exports,
Custom House, London, 22d March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX (V.)

AN ACCOUNT of the Quantities of Unmanufactured Tobacco imported into the United Kingdom in each Year from 1860 to 1869 inclusive, distinguishing the principal Countries from which imported.

Countries from which imported.	Quantities of Unmanufactured Tobacco imported into the United Kingdom.									
	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Hanse Towns -	531,742	951,758	1,317,232	1,354,193	1,229,946	1,748,017	2,220,734	1,684,603	648,203	1,456,623
Holland - -	3,236,824	7,899,288	8,651,421	7,783,921	6,050,409	8,347,852	8,907,583	7,692,614	5,852,258	6,350,957
Greece - -	62,129	762,209	382,629	542,502	388,516	44,049	221,848	517,314	823,759	312,317
Turkey Proper -	1,197,834	1,947,654	936,964	1,229,710	1,435,748	1,248,951	4,337,135	2,475,461	3,502,956	1,752,587
Philippine Islands -	—	61	—	—	992,273	1,345,893	3,249,142	1,297,352	3,499,768	1,334,718
Japan - -	45,386	125	375,829	803,518	1,596,968	1,291,961	262,631	2,193,951	212,329	574,339
Cuba - -	615,172	619,419	557,893	847,739	819,388	611,158	189,457	184,604	248,644	242,976
New Granada -	479,838	302,115	1,288,937	848,926	4,452,578	1,827,469	2,345,673	1,847,999	2,287,415	1,872,765
Uruguay - -	10,948	—	82	201,426	273,383	325,731	9,418	—	—	—
Argentine Confederation	793,695	1,866,334	2,150,896	2,859,714	1,515,780	1,134,074	528,068	—	—	—
Other Countries except United States	1,478,498	2,698,297	3,128,897	2,840,328	2,545,844	1,509,934	2,782,214	2,145,223	1,937,674	1,645,276
Total, exclusive of United States -	8,452,066	17,047,260	18,790,780	19,311,977	21,300,833	19,435,089	25,053,903	20,039,121	19,013,006	15,542,558
United States -	40,484,405	33,713,856	21,191,343	32,006,307	39,741,834	46,649,768	29,320,894	37,547,166	28,681,443	37,046,032
All Parts - -	48,936,471	50,761,116	39,982,123	51,318,284	61,042,667	66,084,857	54,374,797	57,586,287	47,694,449	52,588,590

Office of the Inspector General of Imports and Exports, Custom House, London, 22d March 1870.

EDW. BERNARD, Inspector General.

APPENDIX (W.)

AVERAGE RATES of DECLARED VALUE for BRITISH COTTON, LINEN, WOOLLEN, and IRON MANUFACTURES exported from the UNITED KINGDOM, in the Years 1865, 1866, 1867, 1868, and 1869 respectively.

	Years.														
	1865.			1866.			1867.			1868.			1869.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Cotton Yarn - - - - per Lb.	0	2	0	0	2	0	0	1	9	0	1	8¼	0	1	8
Cotton Manufactures :															
Piece Goods, White or Plain - per Yard.	0	0	5	0	0	5	0	0	4¼	0	0	3¾	0	0	3¾
Printed, Dyed, or Coloured - „	0	0	6	0	0	6	0	0	5¼	0	0	4¾	0	0	4⅞
White or Plain, and printed conjointly - - „	0	0	5¼	0	0	5½	0	0	4½	0	0	4	0	0	4¼
Stockings - - - - per doz. Pairs	0	7	10	0	8	4	0	7	1	0	6	6¾	0	6	9¾
Thread for Sewing - - per Lb.	0	3	3	0	3	4	0	3	5	0	3	4	0	3	4¼
Linen Yarn - - - - - „	0	1	4	0	1	5	0	1	5	0	1	5	0	1	4
Linen Manufactures :—															
White and Plain - - per Yard	0	0	8	0	0	8¼	0	0	7¾	0	0	7⅜	0	0	7
Printed, Checked, or Dyed - „	0	0	8½	0	0	9	0	0	8¼	0	0	7⅞	0	0	7⅞
Sail Cloth - - - „	0	1	1	0	1	1	0	1	1	0	1	1⅛	0	1	2
Piece Goods of all Kinds - „	0	0	8¼	0	0	8½	0	0	8	0	0	7⅞	0	0	7¼
Thread for Sewing - - per Lb.	0	2	10	0	2	8	0	2	6	0	2	4½	0	2	5½
Woollen and Worsted Yarn - - „	0	3	5	0	3	6	0	3	1	0	2	11	0	3	0
Woollen and Worsted Manufactures :—															
Cloths of all Kinds, Duffels, &c. :—															
Of Wool only - - - per Yard	0	3	5	0	3	6	0	3	9	0	3	6¼	0	3	6½
Of Wool mixed with other Materials - - „	0	2	6	0	2	8	0	3	0	0	2	5¼	0	2	4½
Mixed and unmixed conjointly „	0	3	1	0	3	2	0	3	5	0	3	0⅜	0	3	0½
Flannels - - - - „	0	1	4	0	1	3	0	1	3	0	1	1⅜	0	1	1
Blankets - - - - „	0	2	0	0	1	11	0	2	1	0	2	0⅞	0	1	11½
Blanketing and Baizes - „	0	2	1	0	2	2	0	1	9	0	1	9⅝	0	1	6⅝
Carpets and Druggets - - „	0	3	0	0	3	2	0	3	4	0	2	11¾	0	3	0¼
Worsted Stuffs, of Wool only - „	0	1	6	0	1	5	0	1	4	0	1	4	0	1	3¾
Of Wool mixed with other Materials - - „	0	1	1	0	1	1	0	1	2	0	1	1⅜	0	1	2¼
Mixed and unmixed conjointly „	0	1	2	0	1	2	0	1	2½	0	1	1⅝	0	1	2½
Stockings - - - - per doz. Pairs	0	11	0	0	11	7	0	10	5	0	8	10¾	0	10	2¼
Iron :—															
Pig - - - - - per Ton	2	11	7	3	2	2	2	18	6	2	16	10	2	17	10
Bar, Angle, Bolt, and Rod - „	8	12	4	8	11	5	7	16	8	7	10	6	7	10	1
Railroad of all Sorts - - „	8	4	0	8	7	2	8	7	11	7	19	11	8	2	7
Wire - - - - - „	18	15	0	19	18	8	19	6	4	18	19	1	18	7	0
Cast - - - - - „	8	13	4	9	5	7	8	7	9	8	4	9	8	1	1
Hoops, Sheets, and Boiler Plates „	13	15	1	13	3	3	12	6	1	11	18	2	11	1	4
Wrought of all Sorts - - „	19	11	1	20	4	5	19	7	10	18	2	10	18	1	11
Steel, Unwrought - - „	32	16	1	32	12	2	32	14	3	32	2	6	30	19	7
Old and broken for re-manufacture „	4	5	10	4	3	8	3	19	6	3	19	5	4	1	4

Office of the Inspector General of Imports and Exports, Custom House, London, 23rd March 1870.

EDW. BERNARD, Inspector General.

APPENDIX (X.) (*See Supplement, next page.*)

An Account of the total Quantities and Value of Corn and Flour of all Sorts imported from and exported to United States and France respectively in 1868 and 1869.

—	Corn, Grain, Meal, and Flour imported into the United Kingdom							
	From United States.				From France.			
	Quantities.		Value.		Quantities.		Value.	
	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.
	Cwt.	Cwt.	£	£	Cwt.	Cwt.	£	£
Wheat	5,908,149	13,181,507	4,385,601	6,939,258	56,414	468,274	35,387	245,732
Barley	219	815	113	346	1,248,769	1,539,356	677,815	734,903
Oats	49,433	21,161	25,737	9,229	24,736	65,589	11,973	29,023
Rye	—	—	—	—	17,050	8,108	6,982	3,330
Pease	226,685	27,930	111,351	12,151	18,497	11,771	9,037	5,171
Beans	883	5,212	417	2,398	110,482	163,059	56,159	74,253
Indian corn	4,009,770	1,354,844	1,738,778	463,580	178,461	166,312	88,467	55,911
Buckwheat	13	11	6	5	120,057	49,736	55,832	22,620
Total of Corn and Grain	10,195,152	14,591,480	6,262,003	7,426,967	1,774,466	2,472,205	941,652	1,170,943
Wheat meal or flour.	676,192	1,711,000	610,251	1,170,137	632,359	1,348,061	608,658	1,006,311
Barley meal	—	—	—	—	—	81	—	41
Oat meal	220	647	174	405	105	22	74	13
Pea meal	—	—	—	—	—	1	—	—
Bean meal	316	—	177	—	20	—	10	—
Indian corn meal.	5,938	5,833	3,419	2,731	9	67	6	33
Buckwheat meal.	12	36	7	20	—	—	—	—
Meal unenumerated.	155	687	66	258	1,377	993	542	378
Total of Meal and Flour	682,833	1,718,203	614,094	1,173,551	633,870	1,349,225	609,290	1,006,776
Aggregate of Corn Grain, Meal and Flour	10,877,985	16,309,683	6,876,097	8,600,518	2,408,336	3 821,430	1,550,942	2,177,719

—	Corn, Grain, Meal, and Flour exported from the United Kingdom.							
	To United States.				To France.			
	Quantities.		Value.		Quantities.		Value.	
	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.
	Cwt.	Cwt.	£	£	Cwt.	Cwt.	£	£
Wheat	207	1,503	147	1,198	186,230	50,308	135,203	31,747
Barley	51,101	54,888	28,362	24,337	—	108	—	50
Oats	68	811	69	549	379,490	39,454	182,246	15,608
Rye	—	—	—	—	520	—	291	—
Pease	24	256	22	357	4,366	2,231	4,604	2,217
Beans	—	1,318	—	586	1,970	1,061	998	506
Indian corn	—	—	—	—	47	218	20	74
Total of Corn and Grain	51,400	58,776	28,600	27,027	572,623	93,380	323,362	50,202
Wheat meal or flour.	—	—	—	—	2,979	237	3,000	89
Oat meal	1,257	1,711	1,522	1,609	18	253	23	188
Total of Meal and Flour	1,257	1,711	1,522	1,609	2,997	490	3,023	277
Aggregate of Corn, Grain, Meal, and Flour	52,657	60,487	30,122	28,636	575,620	93,870	326,385	50,479

Office of the Inspector General of Imports and Exports,
Custom House, London, 29th March 1870.

EDW. BERNARD,
Inspector General.

APPENDIX X.—*Supplement.*

WHEAT and WHEAT FLOUR imported into the UNITED KINGDOM from the UNITED STATES in the Years 1868 and 1869, showing the divisions of Ports from which imported.

		Quantities.		Value.	
		1868.	1869.	1868.	1869.
	From	Cwts.	Cwts.	£	£
Wheat	United States, North Atlantic Ports	3,307,423	9,734,122	2,235,987	4,961,795
	South Atlantic Ports	38,559	373,437	26,268	184,845
	Ports on the Pacific	2,562,167	3,073,948	2,123,346	1,792,618
	From	5,908,149	13,181,507	4,385,601	6,939,258
Wheat Meat and Flour	United States, North Atlantic Ports	569,396	1,421,070	504,710	972,494
	South Atlantic Ports	20,511	254,607	19,780	172,500
	Ports on the Pacific	86,285	35,323	85,761	25,143
		676,192	1,711,000	610,251	1,170,137

EDW. BERNARD,
Inspector General.

APPENDIX (Y.)

A LIST of EXCISE GENERAL WAREHOUSES in the United Kingdom, in which Foreign Spirits and Wine may be bonded under the provisions of the Act 32 and 33 Vict. c. 103.

Collections.	Where Warehouses are situated.	Collections.	Where Warehouses are situated.	Collections.	Where Warehouses are situated.
ENGLAND.					
Bolton -	Blackburn.	Glasgow -	Glasgow.	Coleraine -	Dungannon.
„ -	Burnley.	Greenock -	Greenock.	„ -	Donaghmore.
Bristol -	Bristol.	„ -	Kilmarnock.	„ -	Larne.
Hull -	Hull.	„ -	Paisley.	Cork -	Cork.
Liverpool -	Liverpool.	„ -	Port Glasgow.	Dundalk -	Dundalk.
London, North	Camden Town.	Inverness -	Inverness.	„ -	Drogheda.
„ East	Port of London.	Linlithgow -	Queensferry.	„ -	Newry.
Newcastle -	Newcastle.	Perth - -	Perth.	Dublin -	Dublin.
Plymouth -	Plymouth.	Stirling -	Kirkcaldy.	Galway -	Galway.
Warrington -	Wigan.			„ -	Tuam.
Worcester -	Worcester.	IRELAND.		Limerick -	Limerick.
		Athlone -	Longford.	Londonderry	Londonderry.
SCOTLAND.		„ -	Athlone.	„ -	Enniskillen.
Aberdeen -	Aberdeen.	Bandon -	Tralee.	Sligo -	Sligo.
Dumfries -	Dumfries.	Belfast -	Belfast.	„ -	Ballina.
„ -	Annan.	„ -	Downpatrick.	„ -	Westport.
Dundee -	Dundee.	Carlow -	Kilkenny.	Waterford -	Waterford.
Edinburgh -	Edinburgh.	„ -	Monastereven.	„ -	Carrick-on-Suir.
„ -	Bonnington.	Coleraine -	Coleraine.	„ -	Clonmel.
„ -	Lochrin.	„ -	Ballygawley.	Wexford -	Wexford.
„ -	Leith Docks.	„ -	Ballymoney.	„ -	New Ross.
„ -	St. Leonard's.	„ -	Ballymena.		

Report on the Health of the Out-door Officers, Watermen, Messengers, and other inferior Officers of Her Majesty's Customs, during 1869, by Walter Dickson, M.D., R.N., Medical Inspector Her Majesty's Customs.

Strength of the permanent establishment.

No change has taken place in the strength of the permanent establishment in the Port of London during the year. The numbers of the various classes of the department are the same as given in last annual report, viz.:—

	Stationed in London.	Stationed at Gravesend.	Total.
Out-door officers	600	220	820
Watermen	133	17	150
Messengers	50	—	50
Watchmen	18	2	20
Constables	4	—	4
Doorkeepers	2	—	2
House porter	1	—	1
	808	239	1,047

Changes in the year.

The individual changes in the force have been numerous, and from the following causes:—

Deaths	18
Superannuated on medical certificate	4
Do. by seniority	2
Promoted to gaugers and examining officers	10
Discharged with gratuity	1
Resigned	4
Dismissed	5
Struck off the establishment	2
	46

Average age.

A table of the ages of the officers, arranged in classes, was given in last report. No material alteration has occurred, and the mean age of the force may be fairly

estimated as about 38 years. This circumstance should be borne in mind in comparing the sanitary statistics of the Customs officers with those of the military, naval, police, and other forces, in which the average age is necessarily much less advanced.

Classification of sickness.

The classification of diseases adopted in the following tables is that which was introduced last year, and which is now in use in all the public departments of the country. Although open to objection in some particulars, as intimated in former remarks on the subject, this new nomenclature of diseases is probably as generally applicable and useful a system of registration as can be devised in our present state of knowledge. By it, all maladies are arranged in two great classes, general and local. The former includes the various kinds of fever, rashes, and those which are commonly called constitutional diseases. The latter embraces all other forms of disease, grouped anatomically, according to their known or supposed locality.

TABLE I.

FIRST QUARTER (London).

From 1st of January to 31st of March 1869.

Diseases.			Remained from last Year.	Admissions to Sick List.				Number of Days' Sickness.
				Out-door Officers.	Watermen.	Messengers, &c.	Total.	
General Diseases.	A.	Small-pox	–	–	1	–	1	32
		Febricula	1	10	3	2	15	158
		Intermittent Fever	–	1	–	–	1	28
		Typhoid Fever	1	–	–	–	–	69
	B.	Rheumatism	5	6	2	–	8	281
		Gout	–	1	3	–	4	37
		Syphilis	1	–	1	–	1	28
		Phthisis	6	2	2	1	5	681
LOCAL DISEASES :—								
Diseases of the Nervous System.		Paralysis	1	–	–	–	–	90
		Neuralgia	–	4	1	–	5	67
		Hypochondriasis	–	–	–	1	1	86
		Pleurodynia	1	1	–	–	1	17
		Sciatica	–	1	–	–	1	43
		Ophthalmia	–	1	–	1	2	42
Of the Circulation.		Disease of Heart	1	1	–	–	1	40
		Varix	–	1	–	–	1	21

TABLE I.—*cont.*

Diseases.		Remained from last Year.	Admissions to Sick List.				Number of Days' Sickness.
			Out-door Officers.	Watermen.	Messengers, &c.	Total.	
Of the Respiration	Catarrh	1	8	3	2	13	113
	Bronchitis	3	9	2	3	14	629
	Pneumonia	–	2	–	–	2	72
Of the Digestive Organs.	Quinsy	4	3	2	–	5	81
	Gastritis	1	1	–	–	1	57
	Dyspepsia	–	2	1	–	3	52
	Dysentery	–	1	–	–	1	14
	Constipation	–	1	–	–	1	5
	Congestion of Liver	–	1	–	–	1	8
	Jaundice	1	1	–	–	1	38
	Orchitis	–	3	–	–	3	38
Of the Skin and Cellular Tissue.	Abscess	–	3	–	1	4	74
	Inflammation	–	1	–	–	1	24
	Ulcer	1	1	1	–	2	144
	Boil	–	1	–	1	2	14
	Mussel Poison	–	1	–	–	1	5
	Debility	–	1	–	–	1	22
Injuries.	Scald	–	1	–	–	1	36
	Contusion	1	2	1	–	3	70
	Sprain	–	1	–	–	1	9
	Wound	1	1	1	–	2	25
	Fracture	–	1	–	–	1	48
		29	75	24	12	111	3,298

Meteorology of first quarter.

The weather of the quarter was remarkable for warmth in January and February, succeeded by cold in March. February, especially, gave an exceedingly high mean temperature, viz. 45°, being 7° in excess of the average, and the highest on record, according to Mr. Glaisher, in the last 98 years.* The mean temperature of January was 41°, being nearly 5° above the average. That of March, 37°, was $3\frac{1}{2}$° lower than the ascertained mean, and $6\frac{1}{2}$° colder than the previous year. The maximum and minimum observations at Greenwich for the three months respectively were 56°, 62°, and 54°; 26°, 32°, and 27°. In January and February south and west winds prevailed, and the rain-fall was two inches in excess of the average. March was characterized by cold north and east winds,

* From the elaborate and valuable remarks on Meteorology appended to the Registrar's General's Quarterly Report.

and a rain-fall below the average. The mean temperature of the winter quarter was $2\frac{1}{2}^{\circ}$ in excess, and the amount of rain $1\frac{1}{2}$ inches above the average. The temperature of the Thames water ranged from 40° to 45°. The mortality rate of the metropolis was $25\frac{1}{2}$ per 1,000.

Health of the force.

The inverted order of the season was unfavourable to health, the average number daily on the sick list being 36. The cases of illness were not more numerous than usual, but many were of serious and protracted character, chiefly consumption and chronic bronchitis. Such cases constituted nearly one half of the list. Some had been incapacitated in like manner during previous winters, others had been sent from Gravesend, being manifestly unfit for further continuance at duty on board ship, but having some hope in returning spring to be able to resume work of a lighter kind in the docks. In the extraordinary mild and wet weather of January and February several cases of fever occurred, of no great intensity, and having an average duration of ten days, such as we more frequently meet with in damp summer or autumnal weather. There was one case of small-pox of a very mild type, as it almost invariably is in vaccinated persons. An obstinate case of intermittent fever, with dysentery, occurred in an out-door officer, who had previously suffered from these diseases in China.

Death and superannuation.

No death took place in the quarter from disease, but a young waterman was accidentally drowned while on duty. An outdoor officer of advanced age was superannuated for chronic rheumatism.

TABLE II.

SECOND QUARTER (London).

From 1st of April to 30th of June 1869.

	Diseases.	Remained from last Quarter.	Admissions to Sick List.				Number of Days' Sickness.
			Out-door Officers.	Watermen.	Messengers, &c.	Total.	
General Diseases. A.	Febricula	–	2	–	–	2	13
	Erysipelas	–	1	–	–	1	18
B.	Rheumatism	1	2	2	1	5	74
	Gout	1	4	2	–	6	56
	Syphilis	–	1	–	–	1	58
	Phthisis	10	3	1	1	5	741

TABLE II.—*cont.*

Diseases.		Remained from last Quarter.	Admissions to Sick List.				Number of Days' Sickness.
			Out-door Officers.	Watermen.	Messengers, &c.	Total.	
LOCAL DISEASES:							
Diseases of the Nervous System.	Paralysis	1	–	–	1	1	99
	Epilepsy	–	1	–	–	1	6
	Delirium Tremens	–	1	–	–	1	14
	Hypochondriasis	1	–	–	–	–	14
	Insanity	–	1	–	–	1	52
	Headache	–	1	–	–	1	29
	Pleurodynia	–	2	–	–	2	14
	Sciatica	1	1	–	–	1	36
	Ophthalmia	1	–	–	–	–	14
Of the Circulation.	Diseases of Heart	1	1	–	–	1	127
	Palpitation	–	1	–	–	1	7
Of the Respiratory Organs.	Catarrh	1	2	1	–	3	33
	Bronchitis	5	–	–	–	–	163
	Hæmoptysis	–	–	–	1	1	11
Of the Digestive Organs.	Gastritis	1	–	–	–	–	70
	Dyspepsia	–	1	–	1	2	26
	Diarrhœa	–	3	–	1	4	31
	Dysentery	1	–	–	–	–	65
	Colic	–	2	1	1	4	36
	Congestion of Liver	–	1	–	–	1	5
	Disease of Liver	–	1	–	–	1	28
	Jaundice	–	1	–	–	1	11
Of the Urinary, &c. Organs.	Dysuria	–	–	1	–	1	4
	Stricture of Urethra	–	1	–	–	1	23
	Hæmaturia	–	1	–	–	1	25
	Albuminuria	–	1	–	–	1	79
	Orchitis	1	1	–	–	1	49
	Debility	–	1	–	–	1	7
Of the Skin and Cellular Tissue.	Inflammation	–	2	–	–	2	16
	Abscess	2	1	1	–	2	50
	Scabies	–	1	1	–	2	30
	Ulcer	2	3	–	–	3	82
	Whitlow	–	–	1	–	1	6
Injuries.	Scald	–	1	–	–	1	5
	Contusion	–	2	1	–	3	35
	Sprain	1	1	3	–	4	56
	Fracture	–	1	–	–	1	37
	Dislocation	–	–	1	–	1	27
		31	50	16	7	73	2,382

Meteorology of second quarter.

As in the previous quarter, the weather was unusually warm in the beginning, but was succeeded by untimely cold. The temperature of April was $3\frac{1}{2}^{\circ}$ above the average of that month, being $50\frac{1}{2}^{\circ}$, that of May being the same, $50\frac{1}{2}^{\circ}$, and of June $55\frac{1}{2}^{\circ}$, or 4° below the mean. In the latter days of June, the defect in temperature amounted to $6\frac{1}{2}^{\circ}$, and, notwithstanding a few very hot days, vegetation was thereby much retarded. The maximum temperatures observed in the three months were 79°, 70°, and 87°; the minimum 29°, 33°, and 35°. The rain-fall was $5\frac{1}{2}$ inches, slightly below the average. May was a moist month; April and June were comparatively dry. The temperature of the Thames water ranged from 57° to 50°.

The rate of mortality in London was 22 per 1,000.

Health of force

The season was healthy. No epidemic influence affected the force. The number of admissions to the list was considerably under the average, and few of them were of much importance or severity. The mean daily number of sick was 26, many serious cases remaining from the winter quarter. Among these the mortality was unusually great, although not unexpected, as they had all been long of a manifestly hopeless character, and no death had occurred in the previous five months. Six cases now terminated fatally,—two of consumption, two of organic disease of the heart, one of blood-poison, subsequent to paralysis, shown in the formation of large abscesses and glandular swellings in various parts of the body, and one mentioned last quarter of rapid consumption, following ague and dysentery of old standing, contracted abroad. All were out-door officers, and three of them had been sent from Gravesend as incapacitated by chronic and incurable disease. A young out-door officer who had been only four months in the service was drowned by accident when on duty on the river.

Deaths.

Superannuation.

Two out-door officers were superannuated, one for chronic bronchitis of three years standing, another for paralysis and mental imbecility, while a third, who had retired to Ireland, suffering from chronic phthisis for many months, was discharged with a gratuity, his period of service being too short to entitle him to superannuation.

TABLE III.

THIRD QUARTER (London).

From 1st of July to 30th of September 1869.

Diseases.		Remained from last Quarter.	Admissions to Sick List.				Number of Days' Sickness.
			Out-door Officers.	Watermen.	Messengers, &c.	Total.	
General Diseases.	A. Febricula	–	1	–	–	1	10
	B. Rheumatism	1	3	–	1	4	76
	Gout	1	–	2	–	2	37
	Syphilis	–	1	–	–	1	34
	Phthisis	5	1	–	1	2	319
LOCAL DISEASES:							
Diseases of the Nervous System.	Paralysis	1	–	–	–	–	92
	Vertigo	–	3	–	–	3	51
	Delirium Tremens	–	2	–	–	2	11
	Insanity	1	1	–	–	1	157
	Neuralgia	–	4	–	–	4	37
	Toothache	–	–	1	–	1	6
	Sciatica	–	–	–	1	1	20
	Iritis	–	1	–	–	1	67
Of the Respiratory Organs.	Catarrh	1	5	–	2	7	60
	Bronchitis	–	1	–	–	1	24
	Pneumonia	–	2	–	–	2	24
Of the Digestive Organs.	Gumboil	–	3	–	–	3	17
	Quinsy	–	2	1	–	3	37
	Dyspepsia	–	3	1	1	5	44
	Gastritis	–	1	–	–	1	40
	Diarrhœa	–	14	2	3	19	218
	Tape Worm	–	–	1	–	1	4
	Prolapsus Ani	–	1	–	–	1	16
	Disease of Liver	2	–	–	–	–	35
	Abdominal Tumour	–	1	–	–	1	50
Of the Urinary &c., Organs.	Stricture of Urethra	1	–	–	–	–	18
	Orchitis	1	2	–	–	2	63
	Debility	–	1	1	–	2	41
	Periostitis	–	1	–	–	1	13
Of the Skin and Cellular Tissue.	Abscess	–	3	–	–	3	40
	Eczema	–	1	–	–	1	19
	Urticaria	–	2	–	–	2	14
	Boil	–	–	2	–	2	12
	Ulcer	1	–	–	–	–	25
Injuries.	Contusion	–	1	2	–	3	15
	Sprain	–	5	1	–	6	54
	Wound	–	3	–	–	3	53
	Fracture	1	1	–	–	1	36
	Shock and Submersion	–	–	1	–	1	12
		16	70	15	9	94	1,901

The extremes of temperature observed in the quarter were 91° and 39°. The mean temperature was 61½°, being 1½° in excess of the average. July was hot and

Meteorology of third quarter.

very dry. August cool, but also dry, and the barometer was very high during these months. September was characterised by warm humid weather, a very low barometer, and violent south-westerly gales. The rainfall of the quarter amounted to five inches, upwards of three occurring in September. The temperature of the River Thames ranged from 64° to 58°.

The mortality of the metropolis was rated at 24½ per 1,000.

Health of the force.

The health of the force was satisfactory, the daily number sick being 20, and the number of admissions considerably under the average of the summer quarter, while none of the new cases were of great severity or importance. As is usual at this season, affections of the bowels formed the most numerous class of illness, but both in number and severity were below the mean,* being for the most part mild and tractable, and showing only in one instance a choleraic tendency.

Deaths and superannuation.

Six deaths occurred in the quarter, in every case the result of chronic disease, by which they had been for many months incapacitated for duty. Three out-door officers and a waterman succumbed to pulmonary consumption; an out-door officer died of organic disease of the liver and dropsy; and another, also advanced in life, of chronic brain disease, the fatal issue being accelerated by a conjoint attack of diarrhœa and delirium tremens. An out-door officer was superannuated for consumption, by which he had been almost entirely disabled from duty for three years.

TABLE IV.

FOURTH QUARTER (London).

From 1st of October to 31st of December 1869.

Diseases.			Remained from last Quarter.	Admissions to Sick List.				Number of Days' Sickness.
				Out-door Officers.	Watermen.	Messengers, &c.	Total.	
General Diseases.	A.	Scarlet Fever	–	1	–	–	1	51
		Relapsing „ -	–	1	–	–	1	7
		Typhoid „ -	–	1	–	–	1	38
		Influenza -	–	6	6	–	12	106
	B.	Rheumatism -	–	5	1	–	6	82
		Gout -	–	1	1	–	2	18
		Syphilis -	–	–	1	–	1	14
		Phthisis -	1	1	1	1	3	207

* The average annual number of such cases in 12 summers has been 39. In the last three years, 16, 20, and 19 respectively, considerably less than the mean.

TABLE IV.—*cont.*

Diseases.		Remained from last Quarter.	Admissions to Sick List.				Number of Days' Sickness.
			Out-door Officers.	Watermen.	Messengers, &c.	Total.	
LOCAL DISEASES:							
Of the Nervous System.	Paralysis	2	–	–	–	–	162
	Vertigo	–	1	–	–	1	27
	Delirium Tremens	–	1	1	–	2	54
	Insanity	1	–	–	–	–	17
	Neuralgia	–	–	1	–	1	31
	Palpitation	–	2	–	–	2	36
Diseases of Respiration.	Catarrh	1	15	6	1	22	195
	Bronchitis	–	4	2	1	7	138
Of the Digestive Organs.	Gumboil	–	1	–	–	1	5
	Quinsy	–	3	1	–	4	58
	Gastritis	1	–	–	–	–	38
	Dyspepsia	–	4	–	–	4	46
	Diarrhœa	2	2	–	–	2	22
	Dysentery	–	1	–	–	1	20
	Colic	–	2	–	–	2	9
	Hæmorrhoids	–	1	–	–	1	10
	Tape Worm	–	–	1	–	1	7
	Abdominal Tumour	1	–	–	–	–	61
Of the Urinary, &c. Organs.	Stricture of Urethra	–	1	1	–	2	24
	Bubo	–	1	–	–	1	61
	Orchitis	–	3	–	–	3	64
	Debility	2	1	–	–	1	163
Of the Skin and Cellular Tissue.	Inflammation	–	1	1	–	2	9
	Abscess	–	5	–	–	5	54
	Boil	–	2	–	–	2	24
	Ulcer	–	1	–	–	1	9
Accidents	Contusion	–	3	3	–	6	89
	Sprain	1	–	1	–	1	31
	Wound	–	3	1	1	5	65
	Fracture	1	1	–	–	1	114
		13	75	29	4	108	2,160

Meteorology of fourth quarter.

The weather of the autumnal quarter was remarkable for its alternations of high and low temperature. The first half of October was warm, nearly 4° in excess of the average temperature, followed by a cold period, which, alternating with brief intervals of unusual warmth, continued till the end of the year. The extremes observed were 74° and 21°. The means of the three months were respectively 49°, 43°, and 38°, all below the average, the

defect on the whole quarter being $1\frac{1}{2}°$. Rain fell to the amount of seven inches. The oscillations of the barometer were great and rapid, especially in December, when the range of readings was as much as 1·6 inches. Heavy gales from S.W. were frequent, and on one day, November 21st, the mercury fell more than an inch. Thunderstorms occurred often in several parts of the country; one in London on October 1st. The temperature of the Thames ranged from 53° to 38°. The mortality of London was at the annual rate of $26\frac{1}{2}$ per 1,000.

Health of the force.

In point of health the quarter was an average one, the number of cases admitted being the mean of the like period in the previous eight years; and the mean daily number on the list was 23. Cases of catarrh and sore throat were prevalent, in some instances attended with great muscular debility and protracted convalescence, thereby falling under the head of influenza, and were due, in some measure probably, to the singular vicissitudes of temperature and atmospheric pressure and electricity. Three deaths occurred from disease, all in out-door officers; one from relapsing fever, complicated with pulmonary congestion, proving suddenly fatal on the eighth day of illness; another from paralysis conjoined with insanity, a hopeless form of brain disease of some months standing; a third from consumption, attended with profuse hæmorrhage from the lung. Another officer died in hospital from the effects of a self-inflicted wound of the throat.

Deaths and superannuation.

No superannuation has to be recorded.

Health of the port, including Gravesend.

The preceding tables comprise those officers who reside in London, and, with the exception of a slight alteration in the grouping of diseases, are a continuation of the returns of the last seven years. The following table includes the medical statistics of the Gravesend division of the force also, so as to give a complete view of the medical statistics of the whole of the Customs force in the Port of London during the year. The details are shown with as much accuracy, it is believed, as the subject will admit of, and to facilitate comparison with former years two supplementary columns are devoted to the enumeration of the cases in each great class of diseases, and of the time thereby lost to the service.

Table V.

Summary of the preceding Tables and general View of the Sick List of the Customs Force, both in London and at Gravesend, including the whole Year 1869.

Diseases.		Cases remaining from last Year.	Admissions in Year.				Total No. of Cases.	Total No. of Days' Sickness.	No. of Cases in each Class.	Days' Sickness in each Class.
			London.		Gravesend.					
			No. of Cases.	No. of Days' Sickness.	No. of Cases.	No. of Days' Sickness.				
General Diseases:										
A.	Small-pox	–	1	32	–	–	1	32		
	Scarlet Fever	–	1	51	–	–	1	51		
	Enteric or Typhoid Fever.	1	1	107	1	90	2	197		
	Relapsing Fever	–	1	7	–	–	1	7		
	Febricula	–	17	182	12	80	29	262		
	Ague	–	1	28	2	22	3	50		
	Influenza	–	12	106	–	–	12	106		
	Erysipelas	–	1	18	1	18	2	36		
									51	741
B.	Rheumatism	5	23	513	21	301	44	814		
	Gout	–	14	148	5	10	19	249		
	Syphilis	1	4	134	3	70	7	204		
	Phthisis	6	15	1,948	–	–	15	1,948		
									85	3,215
Local Diseases:										
Of the Nervous System.	Paralysis	1	1	443	–	–	1	443		
	Epilepsy	–	1	6	–	–	1	6		
	Vertigo	–	4	78	–	–	4	78		
	Neuralgia	–	10	135	4	35	14	170		
	Headache	–	1	29	12	50	13	79		
	Pleurodynia	1	3	31	5	65	8	96		
	Lumbago	–	1	7	9	112	10	119		
	Sciatica	–	3	99	3	17	6	116		
	Delirium Tremens	–	5	79	–	–	5	79		
	Tremor	–	–	–	3	8	3	8		
	Hypochondriasis	–	2	100	1	26	3	126		
	Insanity	–	2	226	–	–	2	226		
									70	1,546
Of the Organs of Circulation.	Disease of Heart	1	2	167	2	29	4	196		
	Palpitation	–	3	43	–	–	3	43		
	Varicose Veins	–	1	21	–	–	1	21		
									8	260
Of the Senses.	Ophthalmia	–	2	55	1	3	3	58		
	Iritis	–	1	67	3	69	4	136		
									7	194
Of the Respiratory Organs.	Catarrh	1	45	401	96	510	141	911		
	Bronchitis	3	22	954	15	333	37	1,287		
	Pneumonia	–	4	96	–	–	4	96		
	Hæmoptysis	–	1	11	6	109	7	120		
									189	2,414
Of the Digestive Organs.	Stomatitis	–	–	–	1	6	1	6		
	Gumboil	–	5	28	–	–	5	28		
	Sore Throat	2	5	46	4	30	9	76		
	Quinsy	2	7	130	7	70	14	200		
	Gastritis	1	1	127	–	–	1	127		
	Dyspepsia	–	15	246	21	130	36	376		
	Gastrodynia	–	–	–	7	39	7	39		

TABLE V.—*cont.*

SUMMARY of the preceding Tables and general View of the Sick List of the Customs Force, both in London and at Gravesend, including the whole Year 1869—*cont.*

DISEASES.		Cases remaining from last Year.	Admissions in Year.				Total No. of Cases.	Total No. of Days' Sickness.	No. of Cases in each Class.	Days' Sickness in each Class.
			London.		Gravesend.					
			No. of Cases.	No. of Days' Sickness.	No. of Cases.	No. of Days' Sickness.				
GENERAL DISEASES—*cont.*:										
Of the Digestive Organs—*cont.*	Dysentery	–	2	99	1	16	3	115		
	Hernia	–	–	–	1	3	1	3		
	Tape Worm	–	2	11	–	–	2	11		
	Diarrhœa	–	25	275	30	147	55	422		
	Colic	–	6	45	4	29	10	74		
	Constipation	–	1	5	3	15	4	20		
	Hæmorrhoids	–	1	10	3	27	4	37		
	Prolapsus Ani	–	1	16	–	–	1	16		
	Congestion of Liver	–	2	13	13	101	15	114		
	Disease of Liver	–	1	63	1	22	2	85		
	Jaundice	1	1	49	–	–	1	49		
	Abdominal Tumour	–	1	111	–	–	1	111		
									172	1,909
Of Urinary, &c. Organs.	Albuminuria	–	1	79	–	–	1	79		
	Hæmaturia	–	1	25	–	–	1	25		
	Stricture of Urethra	–	4	69	3	34	7	103		
	Orchitis	–	9	214	3	37	12	251		
	Bubo	–	1	61	1	18	2	79		
									23	537
Of Bone.	Periostitis	–	1	13	–	–	1	13		
									1	13
Of Skin and Cellular Tissue.	Inflammation	–	–	–	6	59	6	59		
	Abscess	–	14	218	4	58	18	276		
	Tumour	–	1	8	–	–	1	8		
	Urticaria	–	2	14	1	6	3	20		
	Eczema	–	1	19	–	–	1	19		
	Scabies	–	2	30	4	30	6	60		
	Eruption	–	–	–	6	28	6	28		
	Ulcer	1	6	259	2	41	8	300		
	Boil	–	11	100	4	30	15	130		
	Whitlow	–	1	6	2	11	3	17		
									67	917
	Debility	–	5	333	–	–	5	333		
									5	333
	Mussel poison	–	1	5	–	–	1	5		
									1	5
Accidental Injuries.	Scald	–	2	41	1	6	3	47		
	Contusion	1	15	209	13	165	28	374		
	Wound	1	10	143	6	90	16	233		
	Sprain	–	12	136	11	164	23	300		
	Dislocation	–	1	27	–	–	1	27		
	Fracture	–	4	235	3	70	7	305		
	Shock and Submersion from Explosion.	–	1	12	–	–	1	12		
									79	1,298
		29	387	9,852	371	3,530	758	13,382		

From this table it will be seen that although the number of cases entered on the list at Gravesend is nearly as great as in London, and is proportionally higher, yet that as a rule they are of a far less serious and protracted character. The duties of the Gravesend officers, being on board ship, are necessarily of such a nature that only the younger and more vigorous men can be employed on them. Being almost always away from home, the officers in charge of vessels "from foreign" have more continuous and harassing duty, and have to undergo considerable discomfort and occasionally privation in sleeping accommodation, diet, &c. It is therefore necessary to place them on the list for comparatively slight ailments, and when the case is of a chronic and almost hopeless character, incapacitating the officer for all but the lightest possible duty, he is generally transferred to London, where among the very few easy stations at the docks or elsewhere some work may be provided for him. To many this is a great boon, enabling them to protract for some time their connexion with the service and to procure increased comfort during their final illness. A considerable proportion of the mortality and superannuation of the year has been derived from cases of this kind sent from Gravesend in the past or former years. The difference in the character of the two divisions of the department may be indicated numerically, thus :—

The Gravesend division compared with the London division.

	London.	Gravesend.
Mean daily number sick - -	27	10
Per cent. on strength - -	3·3	4·1
Ratio of cases on strength - -	48	155
Mean duration of each case -	25 days	9·5 days
Loss of time through sickness per man - - - -	12 „	15 „

The health of the force in both places has been on the whole satisfactory, inasmuch as no serious epidemic affected it, and the mortality, although exceptionably high, was almost entirely caused by maladies of long duration and incurable character, in men mostly advanced in life, and who had been incapacitated for all active duty for months or even years previously. The mean age of those who died (excluding three accidental or violent deaths) was 45, and of those who were superannuated from disease 46 years. As usual, pulmonary consumption

Medical character of the year.

was the chief cause of mortality, being fatal in eight cases, organic disease of the heart in two cases, of the brain in two cases, and of the liver in one case.

Consumption and chest complaints.

In last year's report reference was made to consumption as the most important disease in the force, as well as in the population at large, causing far more disability and death than any other. In this year it caused one-fifth of the whole amount of sickness, and more than half of the mortality. Next to it came bronchitis and catarrh, constituting another fifth of the entire sickness, but without any fatal result, although the former is the malady which chiefly affects the older officers and frequently incapacitates them for the greater part of the winter.

Rheumatic diseases; their prevalence and importance.

To those succeed in prevalence rheumatism and gout, which caused more than a tenth of the sickness in this body of men. These diseases attract comparatively little attention in the sanitary statistics of the country, as they are very seldom directly fatal. But, with the exception of the respiratory affections, which are the bane of our climate, no class of maladies causes so much suffering among all ranks of the community, or more protracted disability to labour, and consequent public loss. As the health statistics of the Customs officers in London may be considered as a tolerably fair exponent of the sanitary condition of the middle-aged middle-class male population of the metropolis, and even of the country at large, a statement of the extent of these diseases in the last seven years may be not devoid of interest.

Rheumatism in last seven years.

Years.	Cases.	Days' Sickness.	Per cent. on Total Sickness. No.	Per cent. on Total Sickness. Time.
In 1863	122	1,516	14	14
1864	139	2,091	13	15
1865	102	1,557	14	14
1866	93	1,437	12	12
1867	104	2,032	12	14
1868	124	2,217	14	15
1869	87	1,394	11	11

The mean annual number of cases for the period was 110, and of days' sickness 1,749, giving a per-centage of 13 on the entire number of cases admitted to the sick list, and also of 13 on the time lost to the service by illness of every kind. In some years these diseases have been much more prevalent than in others; in 1864 and 1868 being much above the mean, and in 1866 and 1869 as far below it. Last year was especially free from the epidemic proclivity which sometimes characterizes this malady, while in the year immediately preceding, particularly in the autumnal quarter, it affected the force with extraordinary severity. In the London division, rheumatism and the cognate diseases caused in 1868 the large proportion of 16 per cent. on the whole time lost by sickness, whereas in 1869 not more than 8 per cent. was due to them. The influence of damp variable weather in exciting rheumatism is well ascertained, and the protracted exposure and strong muscular exertion incident to some of the Customs duties cannot fail to contribute to its production in such officers as are employed on the water-guard. There is often, unquestionably, a hereditary or constitutional tendency to this disease, as well as to gout. But other circumstances, as yet imperfectly known, bearing on this and some other rarely fatal, but not less distressing and important maladies, may probably be brought to light, were some attempt made to register the sickness as well as the mortality of the kingdom. For such returns ample and easily available material exists in the records of various public institutions, and more especially of the poor law service.

Fluctuation in prevalence of rheumatism.

its causes, known and unknown.

In the Customs' force, notwithstanding the extent and severity of the disease, no death has been directly attributable to it during the last 13 years. Superannuations from this cause have recently averaged one a year. Between 1856 and 1862 they averaged five a year. Since the former year 37 officers have been discharged on superannuation on account of rheumatism, and 3 for gout, nearly all well advanced in years, and in some complicated, as is not uncommon, with chronic bronchitis. Of this number 30 survive at the present time.*

Mortality and superannuation from rheumatism.

Organic disease of the heart is next to consumption the most fatal malady which affects this body of men. 16 deaths have occurred in the last 13 years, 2 in 1869. Of the earlier deaths exact details are wanting, but of

Disease of the heart.

* Of superannuations in the last 13 years from other diseases, 56 in number, there are at present only 26 survivors.

the 9 deaths which have taken place in the last eight years, under my observation, only 4 had a rheumatic origin, or could be distinctly traced to severe or repeated attacks, mostly many years before, of rheumatic disease.

Prevalent diseases of other organs,

Next to the great groups of respiratory and rheumatic diseases come disorders of the stomach and bowels. The cases, although numerous, occupy less time under treatment, 55 cases of diarrhœa giving 422 days sickness, and 36 of dyspepsia 376 days sickness. The majority of these affections occur in the Gravesend division. Diseases of the brain and nervous system do not yield a large proportion of cases, but some, as of paralysis and insanity, were many months on the list, and two terminated fatally. Accidents of various kinds form about 11 per cent. of the number disabled and time lost in the year. Some were of considerable severity, and include seven fractures, one dislocation, and a case of severe concussion and submersion caused by the fatal explosion of a steam tug on 11th of August in the river. Two officers met their death by accidental drowning in the river while on duty, and one, while on leave, in a fit of delirium committed suicide.

and accidents.

No change has occurred in the routine duties or organization of the force to call for any additional remarks in relation to their health to those made in former reports.

Number of patients visited at home.

The daily attendance of sick in London has averaged 25, while the visits paid to those who were incapacitated from leaving their homes have been 1,898 in number, chiefly at two to four miles distance, in the rapidly extending suburbs of the north-eastern and south-eastern districts, which are now, however, somewhat more easy of access through increased facilities of locomotion.

TABLE VI.

DEATHS IN 1869.

Name.	Rank.	Age.	Length of Service.	Date.	Cause of Death.
			Yr. Mo.		
H. C. Smith -	Waterman -	27	1 0	Jan. 7	Drowned by accident.
G. E. Rawlinson -	Out-door officer	42	13 0	Apr. 22	Pyæmia and sloughing abscess.

TABLE VI.—*cont.*

Name.	Rank.	Age.	Length of Service.	Date.	Cause of Death.
			Yr. Mo.		
A. J. Wilson -	Out-door officer	21	0 4	May 8	Drowned by accident.
T. Atteridge -	Do.	43	15 0	„ 8	Consumption.
J. A. Riboldi -	Do.	46	23 0	„ 25	Disease of heart, asthma, and dropsy.
W. Neylan - -	Do.	26	2 9	June 17	Consumption.
W. H. F. Johnstone	Do.	26	2 4	„ 28	Dysentery and consumption (in Ireland).
H. Sloan - -	Do.	59	31 6	„ 29	Disease of heart and asthma.
P. Burton - -	Waterman -	33	8 10	July 17	Consumption.
W. Shillan -	Out-door officer	56	28 2	„ 27	Disease of brain.
T. Fleming -	Do.	54	28 7	Aug. 1	Disease of liver, and dropsy.
J. Johnstone -	Do.	33	10 1	Sept. 4	Consumption (in Ireland).
T. Fleetwood -	Do.	38	14 6	„ 21	Consumption (in Cheshire).
J. Gregg - -	Do.	56	31 9	„ 25	Consumption and pulmonary hæmorrhage.
C. Jones - -	Do.	39	15 6	Oct. 9	Suicide.
B. Mackie - -	Do.	41	15 11	Nov. 12	Fever and pneumonia.
S. Furneaux -	Do.	50	25 6	Dec. 10	Paralysis and insanity.
P. Carlin - -	Do.	49	24 2	„ 28	Consumption, pulmonary hæmorrhage, and hydrothorax.

TABLE VII.

SUPERANNUATIONS IN 1869.

Name.	Rank.	Age.	Length of Service.	Date.	Cause of Superannuation.
			Yr. Mo.		
P. D. Smith -	Out-door officer	58	32 0	Feb. 17	Chronic rheumatism.
W. M'Qualter -	Do.	47	23 3	Apr. 29	Chronic bronchitis.
G. F. Brooks -	Do.	42	15 0	May 18	Paralysis.
R. Hamilton -	Do.	37	15 3	Aug. 28	Consumption.

General results.

The general results of the preceding tables are these:

The mean daily number on the sick list has been 36 or 3·3 per cent. The ratio of admissions on strength has been 72 per cent. The mean duration of each case has been 17 days. The time lost to the service through disease or accident has been 12·7 days per man. The deaths, including three from accident or violence, were at the rate of 1·7 per cent.; from disease alone 1·4 per cent. Superannuations were at the rate of 0·4 per cent. These numbers exhibit a favourable comparison with the year immediately preceding, with exception of the deaths, which for reasons explained at page 127, are slightly above the average.

Walter Dickson, M.D.

April 1870.

LONDON:
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For Her Majesty's Stationery Office.

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TO THE

REPORTS OF THE COMMISSIONERS OF HER MAJESTY'S CUSTOMS

ON

THE CUSTOMS,

FROM

1857 TO 1869.

Presented to both Houses of Parliament by Command of Her Majesty.
1870.

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PREFACE.

In the following Index will be found all subjects adverted to by the Commissioners of Customs in their several yearly Reports to the Lords Commissioners of Her Majesty's Treasury, from 1857 to 1869 inclusive; and in the columns headed "Date of Report" and "Page" are given the references to the several subjects.

The Reports refer to transactions which occurred in the year preceding their issue, but in the first Report issued in 1857, in addition to the transactions of the preceding year, is given an Historical Sketch of the Customs from early times.

In compiling the "Analysis" the usual Alphabetical system has been adopted, but under the Alphabetical Headings in the Index it has been found more convenient, with a few exceptions, to classify subjects in the order of date.

A List of Articles which have been subject to any alteration of Duty, &c., and the nature of the change, will be found alphabetically arranged under the heading "Tariff."

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Arms .. .. „	1861	50

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B.			
Baskets	Free	1861	60
Beads..	„	1861	60
Beer, Spruce	Increased	1857	40
Bichromate of Potash	Free	1857	40
Books	Reduced	1861	58
——	Free	1862	45
Boots and Shoes, *see* Leather	„	1861	53
Bonnets of Felt	Reduced	1858	8
—— &c. (*see* Hats)	Free	1861	51 & 52
Boxes of Brass	„	1861	60
—— unenumerated..	„	1861	60
Brass, Manufactures of	„	1861	50
Brocade of Gold or Silver	„	1861	50
Bronze, Manufactures of	„	1861	50
Butter, from Canada	Reduced	1860	44
——	Free	1861	60
C.			
Canes, Walking, &c.	Free	1861	50
Cane Juice	Reduced	1865	55
——	Altered	1866	49
Candles	Free	1861	60
Capers..	„	1861	60
Cassia Lignea..	„	1861	60
Caoutchouc, Manufactures of ..	Reduced	1858	8
—— do.	Free	1861	50
Calcined Magnesia	„	1860	44
Cards, Playing	Reduced	1863	51
Cherries, Dried	„	1858	8
——, Raw..	Free	1861	50
——, Dried	Reduced	1865	55
Cheese	Free	1861	60
Chicory, Roasted or Ground ..	Reduced	1858	8
—— Raw or Kiln-dried	Increased	1861	9 & 66

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Chicory, Raw or Kiln-dried	Increased	1862	46
———, do.	„	1864	53
China Ware	Free	1861	50
Cinnamon	„	1861	60
Clocks	„	1861	50
Cloves	„	1861	60
Coculus Indicus	„	1861	60
Coffee	Reduced	1858	8
Collodion	„	1863	51
Comfits, Dry	„	1858	8
———	„	1865	55
Confectionery	„	1858	8
———	„	1865	55
Corks	Free	1861	50
Copper, Manufactures of	„	1861	60
Coral Negligees	„	1861	60
Corn	Altered	1865	55
Cotton, Manufactures of	Free	1861	51
Currants	Reduced	1861	63
D.			
Daguerreotype Plates	Free	1861	60
Dates	„	1861	60
Deals, from Canada	Reduced	1860	44
Dice	Free	1868	83
Drawings and Sketches (Hand)	„	1860	44
E.			
Earthenware	Free	1861	51
Eau de Cologne (*see* Water)	Reduced	1861	63
Eggs	Free	1861	61
Embroidery	„	1861	51
Ether	Reduced	1863	51
Extracts (Various)	Free	1861	61

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F.			
Feathers	Free	1861	51
Figs	Reduced	1861	63
Flowers, Artificial	Free	1861	51
Fruit, Raw	„	1861	51
—— Preserved in Sugar (*see* Succades)	Reduced	1865	55
Furniture	Increased	1861	66
——	Free	1867	75
G.			
Ginger	Free	1861	61
——, Preserved	Reduced	1858	8
——	„	1865	55
Glass, Window	Free	1858	8
—— Cut	„	1861	61
Gloves (*see* Leather)	„	1861	53
—— Woollen	„	1861	57
Glucose	Rate charged	1866	49
—— Solid	„	1869	56
Gongs	Free	1861	61
Grapes	„	1861	51
Grains, Guinea, and of Paradise	„	1861	61
Grain, Corn	Altered	1865	55
Gutta Percha, Manufactures of	Free	1861	51
H.			
Hair, Manufactures of	Free	1861	51
Hats or Bonnets of Chip, &c. ..	Reduced	1861	51, 52
——	Free	1862	45
Hoops	„	1867	75
Hops	Reduced	1861	63
——	„	1862	46
——	Free	1863	51
—— Extract of	„	1863	51
I.			
Iron, Machinery, &c...	Free	1861	52

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J.			
Japanned and Lacquered Ware	Free	1861	61
Jewels and Precious Stones, set	,,	1861	52
L.			
Lace	Free	1861	52
Lead, Manufactures of	,,	1861	52
Leather, Manufactures of	,,	1861	52
———, Gloves	,,	1861	52
Lemons (*see* Oranges)	,,	1861	62
Lime, Chloride of	,,	1858	8
Linen Manufactures	,,	1861	53
Liquorice Paste, &c.	,,	1861	61
Lucifers	,,	1861	53
M.			
Mace	Free	1861	61
Magnesia (*see* Calcined)	,,	1860	44
Malt	Rate charged	1861	66
Marmalade	Reduced	1858	8
———	,,	1865	55
Meal	Altered	1858	8
Milk (*see* Preserved)..	Free	1860	44
Millboards	Reduced	1861	58
Molasses	,,	1865	55
Morphia and its Salts	Free	1861	53
Muriatic Acid..	,,	1859	32
Musical Instruments	,,	1861	54
Mustard	,,	1861	61
N.			
Naphtha	Rate charged	1868	83
Nutmegs	Free	1861	61
Nuts	,,	1861	62
Nux Vomica	,,	1861	62

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O.			
Oils, Chemical, Essential, Perfumed, &c. ..	Free	1861	54
Oilcloth	„	1861	62
Onions..	„	1861	62
Opera Glasses..	„	1861	54
Opium	„	1861	62
Oranges and Lemons..	„	1861	62
Oxalic Acid	„	1859	32
Oximuriate of Tin	„	1857	40
P.			
Paper	Reduced	1861	58
——	Free	1862	45
Pasteboard	„	1861	58
Pears	„	1861	54, 62
Percussion Caps	„	1861	54
Perfumery	„	1861	54
Pepper.	„	1867	75
Pewter Manufactures..	„	1861	62
Pimento	„	1861	62
Plate, Gold and Silver	Reduced	1861	58
Platina Wire	Free	1859	32
Platting, Chip and Straw	„	1861	62
Plums, Dried	Reduced	1857	40
Plums preserved in Sugar	„	1858	8
——, do.	„	1865	55
Pomatum	Free	1861	62
Powder, Hair or Perfumed	Reduced	1861	63
Preserved Milk	Free	1860	44
Prints and Drawings..	Reduced	1861	58
——	Free	1862	45
Q.			
Quassia	Free	1861	62
Quinces	„	1861	55
Quinine	„	1861	55

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R.			
Raisins	Reduced	1861	63
Rice Dust	Charged	1858	8
Rice	Free	1861	62
S.			
Salicine	Free	1861	62
Sauces	,,	1861	62
Scaleboards	,,	1861	62
Seeds, Caraway	,,	1861	62
Sheet Iron	,,	1859	32
Ships, Foreign built, broken up	,,	1861	62
—— Foreign or Colonial	Charged	1861	67
——, do.	Free	1867	75
Shovel Hilts	,,	1867	75
Silks	,,	1861	55, 56, 57
Soap	,,	1861	62
Soy	,,	1861	63
Spa Ware	,,	1861	63
Spelter, Manufactures of	,,	1861	63
Spirits, Colonial, Imported into Ireland..	Increased	1859	32
——	Altered	1861	58, 67
——, Isle of Man	Increased	1867	75
Stays or Corsets	Free	1861	57
Stearine	,,	1861	63
Succades, including all Fruits and Vegetables preserved in Sugar	Reduced	1858	8
——, do. do.	,,	1865	55
Sugar and Sugar Cane Juice	,,	1858	8
——	,,	1865	55
Sugar Cane Juice	Increased	1866	71
Sugar,—Isle of Man..	,,	1867	75
——	Reduced	1868	83
Sulphuric Acid	Free	1859	32
——	,,	1861	57

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T.			
Tallow	Free	1861	63
Tea	Reduced	1858	8
——	,,	1864	53
——	,,	1866	71
——, Isle of Man	,,	1868	83
Timber	Free	1867	75
Tin, Manufactures of	,,	1861	63
Tinfoil	,,	1861	63
Tobacco	Altered	1864	53
——, Unmanufactured, Isle of Man	Increased	1867	75
——, Manufactured, do.	Reduced	1868	83
Toys	Free	1861	57
Turnery	,,	1861	57
V.			
Vegetables preserved in Sugar	Reduced	1865	55
Vermicelli	,,	1861	63
Vinegar	,,	1857	40
W.			
Washing Balls	Free	1861	63
Watches	,,	1861	57
Water,—Cologne	Increased	1861	63
Wine	Altered	1861	6, 9, 58, 64
——	Reduced	1862	46
——	Altered	1863	34, 51
——, In Bottle	Reduced	1867	75
——, Isle of Man	Increased	1867	75
——, do.	Altered	1868	83
Wood,—Timber and Manufactures of	Reduced	1861	9, 64, 65
——, Staves, &c.	Charged	1861	68
Woollen Manufactures	Free	1861	57
Woollen Yarn	,,	1860	44
Y.			
Yarn, Woollen or Worsted	Free	1861	53

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——— entered for Home Consumption	1859	3
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London received 91 per cent. of the quantity Imported into the United Kingdom	1860	11
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——— entered for Home Consumption	1862	11
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Increase in quantity Imported	1863	14
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London received 95·61 per cent. of quantity Imported into the United Kingdom	1863	28
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Do. do. .. 1848 to 1860	1861	81
Do. do. .. 1848 to 1861	1862	57
Do. do. .. 1848 to 1862	1863	65
Do. do. .. 1848 to 1863	1864	67
Do. do. .. 1848 to 1864	1865	69
Do. do. .. 1848 to 1865	1866	86
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Do. do. .. 1848 to 1863	1864	68
Do. do. .. 1848 to 1864	1865	70
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Do. do. .. 1853 to 1863	1864	62
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SIXTEENTH REPORT

OF

THE POSTMASTER GENERAL,

ON

THE POST OFFICE.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

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SIXTEENTH REPORT.

TO THE RIGHT HONOURABLE THE LORDS COMMISSIONERS OF HER MAJESTY'S TREASURY.

My Lords,

I have the honour to present to your Lordships the Sixteenth Annual Report upon the Post Office.

At the close of my last report I stated that as regards a reduction of postage upon newspapers and other printed matter it would be my duty carefully to consider the question before the next meeting of Parliament. As your Lordships are aware, that question has since been fully considered, and has resulted in an Act which, besides reducing the postage upon newspapers and other printed matter, provides for the introduction of a Card Post.

The Newspaper and Inland Book Post, Pattern Post, and Card Post regulations will be as follows, viz.:—

Newspapers.

Rates of Postage.

Prepaid.—On each newspaper, whether posted singly or in a packet, a postage of one halfpenny. A packet containing two or more registered newspapers, however, not to be chargeable with a higher rate of postage than that chargeable on a book-packet of the same weight, viz., one halfpenny for every two ounces, or fraction of two ounces.

Unpaid.—A newspaper posted unpaid, and a packet of newspapers posted either unpaid or insufficiently paid, to be charged with the unpaid rate applicable to book-packets, viz., one penny for every two ounces, or fraction of two ounces, deducting the value of any stamp or stamps affixed.

(1.) The postage to be prepaid either by an adhesive stamp or by the use of a stamped wrapper.

(2.) No newspaper to pass through the post a second time for the original postage; for each transmission a fresh postage to be prepaid, except that in the case of re-direction the amount chargeable may be collected on delivery.

(3.) Every newspaper or packet of newspapers to be posted either without a cover or in a cover open at both ends so as to admit of removal for examination. If

this rule be infringed, the newspaper or packet to be treated as a letter.

(4.) Every newspaper to be so folded as to admit of the title being readily inspected.

(5.) No newspaper, whether posted singly or in a packet, to contain any enclosure except the supplement or supplements belonging to it.

(6.) A newspaper having any letter or any communication of the nature of a letter written either upon the newspaper itself or upon its cover, to be charged as a letter at the unpaid rate.

(7.) No packet of newspapers to exceed 14 lbs. in weight, two feet in length, or one foot in breadth, width, or depth.

Book Post (Inland).

Circulars, either wholly or in great part printed, engraved, or lithographed, to be entitled to the privileges of the book post.

The book post rate to be reduced to one halfpenny for every two ounces, or fraction of two ounces.

No book-packet to exceed 14 lbs. in weight, two feet in length, or one foot in breadth, width, or depth.

Pattern Post (Inland).

Upon every two ounces or fraction of two ounces a postage of one halfpenny.

1st. The postage to be prepaid either by adhesive stamps or by means of a stamped wrapper, or by a combination of both; except, in London, at the chief office and district offices, and the branch offices at Lombard Street and Charing Cross, and, in Edinburgh and Dublin, at the chief offices, where, from 10 a.m. to 4.0 p.m., the postage may be prepaid in money, provided it amount to not less than 1*l.* in any one case, and provided the packets be posted in bundles, each representing a postage of 5*s.*

2nd. A packet not being sufficiently prepaid but bearing a stamp of the value of one rate, to be charged with double the deficiency; a packet wholly unpaid to be charged with double the pattern postage.

3rd. Patterns or samples to be sent, when practicable, in covers open at the ends, and so as to be easy of examination. But samples of seeds, drugs, and such like articles, which cannot be sent in covers of this kind, but such articles only, may be posted enclosed in boxes or in bags of linen or other material, fastened in such a manner that they may be readily opened, or in bags entirely closed, provided such closed bags are transparent so as to enable the officers of the Post Office readily to

satisfy themselves as to the nature of the contents. If this rule be infringed, the packet to be treated as a letter.

4th. There must be no writing or printing upon any packet except the address of the person for whom it is intended, the address of the sender, a trade mark or number, and the price of the articles; nor may there be any writing or printing or other thing enclosed except such address, mark, number, and price, and a written or printed description of the articles,—which particulars may be on labels attached to the samples. If this rule be infringed, the packet to be treated as a letter.

5th. Any prohibited enclosure will be taken out and forwarded to the address on the packet, charged with full postage as an unpaid letter.

6th. No packet to exceed 12 oz. in weight, or two feet in length by one foot in breadth, width, or depth.

Card Post (Inland).

On and after the 1st October next, post cards, bearing an impressed halfpenny stamp, will be sold at all post offices, at the rate of one halfpenny each.

They will be available for transmission between places in the United Kingdom only.

The front (or stamped) side to bear the address only. There must be no other writing or printing on it, nor must there be any writing or printing across the stamp. On the reverse side, any communication, whether of the nature of a letter or otherwise, may be either written or printed. Nothing is to be attached to the card; nor may it be folded, cut, or otherwise altered. If any of these rules be infringed, the card to be charged on delivery as an insufficiently paid letter.

Late Letter Fees.

In 1869 a reduction took place in the amount of late fee chargeable upon letters posted in London between 7.15 and 7.30 in the evening. The conditions of posting before and after the 23rd of August, the date of the alteration, being as follows:—

Hour of Posting.	Amount of late Fee.	
	Before August 23.	On and after August 23.
	d.	*d.*
From 6 to 6.45 p.m.	1	1
From 6.45 to 7.15 p.m.	2	}
From 7.15 to 7.30 p.m.	4	}

The revenue derived from late letter fees advanced from 13,606*l.* in 1868 to 14,801*l.* in 1869; an increase of 1,195*l.* It would, however, be wrong to suppose that this increase was a consequence of a reduction of the fee. If the year be divided into two periods, the one before and the other after the reduction, and these two periods be compared with the corresponding periods of the preceding year, it will be seen that the concession was attended with some, though very inconsiderable, loss to the revenue, represented, indeed, by the difference between an increase of 9 and 7 per cent.

From Jan. 1, 1869, to Aug. 23, the date of the alteration, the late letter fees amounted to -	£9,716
From Jan. 1, 1868, to Aug. 23, the late letter fees amounted to - - - -	8,883
Showing an increase of - -	£833
or 9·3 per cent.	
From Aug. 22, 1869, to Dec. 31, the late letter fees amounted to - - - - -	£5,085
From Aug. 22, 1868, to Dec. 31, the late letter fees amounted to - - - - -	4,723
Showing an increase of -	£362
or only 7·6 per cent.	

Foreign Service.

Since the date of my last report the Postal Convention with Greece raising the unit for a single rate of postage from a quarter of an ounce to half an ounce has been ratified and brought into operation.

I have also had the satisfaction of concluding a convention with the United States of America, by virtue of which the postage upon letters not exceeding half an ounce in weight has been reduced from 6*d.* to 3*d.* A similar reduction has been made in the postage to Canada and Prince Edward Island.

To the States of Ecuador, Bolivia, Chili, and Peru viâ Panama, the postage has been reduced from 2*s.* to 1*s.* 6*d.* per half ounce; to Guatemala, by the same route, from 2*s.* to 1*s.*, the British Government being relieved in this case from the cost of transit across the Isthmus; to Italy and the Papal States viâ Belgium from 11*d.* to 8*d.*; to Sweden viâ Stralsund from 9*d.* to 8*d.*; and to Norway viâ Denmark from 8*d.* to 7*d.*

By an extension of the arrangement heretofore existing between this country and the principal countries of Europe, printed papers, books, and trade patterns not exceeding two ounces in weight can now be sent to the whole of the British Colonies as well as to all Foreign States with which we have a book and pattern post; in short, to almost every part of the world, at an uniform rate of one penny per ounce.

Soon after I had assumed the direction of the Post Office, I turned my attention to the question of increasing the weight to be allowed for a single letter between the United Kingdom and France.

I found that in 1862 a proposal made by the British Post Office to adopt the half-ounce scale had been met on the part of the French Post Office by a counter proposal to adopt a scale of 10 grammes, equivalent to one third part of an ounce. Anticipating some little difficulty from the adoption of a scale for which no standard weight exists in this country, my predecessor had then suggested that letters to France from the United Kingdom should be charged according to the half-ounce scale, and that letters to the United Kingdom from France should be charged according to the scale of 10 grammes; that each country, in fact, should use the weights to which it is accustomed; but even to this the French Post Office were unable to consent. Again, in 1866, the question had formed the subject of renewed negotiations, but with an equal want of success.

Under these circumstances, it appeared to me to be useless, if indeed it would have been quite becoming, to make any further overtures in favour of the half-ounce scale, and I determined to accept such concession as France might be willing to grant. Accordingly, it was agreed that as between France and the United Kingdom the unit of weight for a single letter should be raised according to French weight from seven and a half to ten grammes, and, according to English weight, from one fourth to one third of an ounce.

Simultaneously with this alteration of weight, the French Post Office consented to a reduction of postage from *4d.* to *3d.*

Upon the settlement of this question with France, I proceeded to make proposals of a similar character to other countries where the quarter ounce scale prevailed; viz., to Austria, Italy, Spain, and Portugal, and I am glad to be able to state that in each case they have met with cordial acceptance. Austria has already adopted the half ounce scale, and Italy has agreed to adopt it, except as regards letters to and from Sicily, in respect to which it has not been found possible to go beyond the French or third of an ounce scale. Spain and Portugal have also consented to adopt the French scale, and as regards these countries, as well as Italy and Sicily, the alteration will shortly come into effect.

Since the date of my last report, the money order system has been established with Belgium and with Grenada in the West Indies, and a convention to the same end with France is now only awaiting the arrangement of details before being carried into effect. Under negotiations now in progress, the same system will, I hope, before long be extended to North Germany, the Netherlands, Denmark, the United States of America, and the East Indies.

New contracts have been entered into for the conveyance of Mails to Brazil and the River Plate with the Pacific Steam Navigation Company and the London, Belgium, Brazil, and River Plate Company, and to the West Coast of Africa with the British and African Steam Navigation Company, in both cases on the principle of paying as nearly as can be calculated the amount of Sea Postage instead of a fixed subsidy. This gives to Brazil and the River Plate four regular Mails every month, and to Africa three.

The contract for the Mail Packet Service between Dover and Calais expired on the 20th of June last. Judging it inexpedient, however, in view of the projected improvements in the Channel communication, to incur fresh obligations extending over any considerable period, I have entered into an agreement with the South-eastern, and London, Chatham, and Dover Railway Companies, terminable upon one year's notice, to continue the service on the present conditions.

Since October last, at the request of the Italian Government, Mails for India, China, and Australia, supplementary to those leaving London viâ Marseilles on Fridays, have been sent viâ Brindisi on Saturdays, with a view to test the relative advantages of the two routes. It would, however, be premature, if only on account of the contemplated closing of the railway over Mont Cenis during the winter months, to decide upon the adoption of the Brindisi route before the completion of the tunnel, which, it is understood, will be opened before the end of next year.

General Progress of Business.

I append a comparative statement of the general progress of business during the years 1868 and 1869.

General Progress of Business.

	Number of Letters delivered.		Number of Inhabited Houses.		Population.		Number of Book Packets, Newspapers, and Pattern Packets delivered.		Amount of Money Orders issued.		Post Office Savings Bank. Number of Depositors.		Post Office Savings Bank. Balance due to Depositors on December 31st.		Total Number of Depositors in Post Office Savings Bank and old Savings Banks combined.	
	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.
England and Wales	670,046,000	687,951,000	4,058,190	4,099,432	21,796,805	22,018,294	80,878,000	83,410,000	£ 16,211,468	£ 16,579,779	902,511	1,015,160	£ 11,902,147	£ 12,713,223	2,038,843	2,147,093
Scotland	77,812,000	80,930,000	409,378	411,606	3,188,125	3,205,481	11,847,000	11,693,000	1,599,790	1,533,726	33,089	36,054	229,676	266,747	211,109	223,152
Ireland	60,260,000	63,033,000	951,326	950,113	5,543,285	5,536,217	13,120,000	13,565,000	1,267,904	1,282,130	29,554	34,571	434,832	544,239	86,702	94,265
United Kingdom	808,118,000	831,914,000	5,418,894	5,461,151	30,528,215	30,759,992	105,845,000	108,668,000	£ 19,079,162	£ 19,395,635	965,154	1,085,785	£ 11,666,655	£ 13,524,209	2,336,654	2,464,510

	Government Insurances. 1868. Number of Policies.	Annual Premium.	Amount insured.	Government Insurances. 1869. Number of Policies.	Annual Premium.	Amount insured.	Government Annuities. Immediate. 1868. Number.	Purchase Money.	Amount.	Immediate. 1869. Number.	Purchase Money.	Amount.	Deferred. 1868. Number.	Purchase Money.	Amount.	Deferred. 1869. Number.	Purchase Money.	Amount.
England and Wales	1,673	£ 4,969	£ 126,386	2,023	£ 6,846	£ 153,993	763	£ 180,685	£ 16,321	1,064	£ 246,102	£ 22,317	150	£ 5,380 annual 1,111	£ 2,765	180	£ 5,599 annual 1,501	£ 3,555
Scotland	72	148	4,998	90	189	6,156	70	14,991	1,349	100	20,217	1,845	6	40 annual 79	155	7	73 annual 79	161
Ireland	44	110	3,440	55	143	4,248	41	11,736	1,119	62	15,495	1,438	4	229 annual 7	51	6	229 annual 14	73
United Kingdom	1,789	£ 5,227	£ 134,824	2,168	£ 7,178	£ 164,397	874	£ 207,412	£ 18,789	1,226	£ 281,814	£ 25,600	160	£ 6,846	£ 2,971	193	£ 7,495	£ 3,789

Omitting the items in the foregoing table which rest on estimate only, such as the number of letters and book packets delivered in the United Kingdom, I pass to those which are absolutely correct; viz., Money Orders, Savings Bank Deposits, and Government Insurances and Annuities.

Money Orders.

The amount for which Money Orders were issued in 1869 was 19,395,635*l.*, an increase of 1·65 per cent. over the preceding year, 2·27 per cent. in England, and 1·12 per cent. in Ireland; but in Scotland a decrease of 4·3 per cent., owing probably to the fact that in 1869 the bankers commenced issuing orders for small sums on their agents.

As between the United Kingdom and abroad, the comparison between the years 1868 and 1869 stands as follows:—

Year.	Money Orders issued in the United Kingdom for Payment abroad.		Money Orders issued abroad for payment in United Kingdom.	
	Number.	Amount.	Number.	Amount.
		£		£
1868 - - - -	14,904	58,532	105,639	499,566
1869 - - - -	19,192	74,124	111,800	509,943
Increase in 1869 - -	4,288	15,592	6,161	10,377

The number of Money Order Offices in the United Kingdom increased from 3,893 at the close of 1868 to 4,061 at the close of 1869, when their distribution was as follows:—

	Money Order Offices.				
	At Head Offices.	At Sub-Offices.	At Receiving Houses.		Total.
			Metropolitan.	Provincial.	
England and Wales -	571	1,617	543	335	3,066
Scotland - -	139	257	27	30	453
Ireland - -	138	381	20	3	542
United Kingdom -	848	2,255	590	368	4,061

Savings Bank Deposits.

The depositors in Post Office Savings Banks at the end of the year 1869 were 1,085,785, an increase of 12·49 per cent. over the preceding year, 12·48 per cent. in England, 8·96 per cent. in Scotland, 16·97 per cent. in Ireland. The balance due to depositors, 13,524,209*l.*, showed an increase of 15·9 per cent.; 15·5 per cent. in England, 16 per cent. in Scotland, 25·1 per cent. in Ireland. The average amount of deposit to each depositor was 12*l.* 9*s.* 1¼*d.*; 12*l.* 10*s.* 5½*d.* in England, 7*l.* 7*s.* 11½*d.* in Scotland, 15*l.* 14*s.* 10*d.* in Ireland; the comparative low average in Scotland being, no doubt, a consequence of the facilities afforded in that part of the United Kingdom for the investment of small sums at interest in banks of unquestionable solidity. The total number of depositors in Post Office Savings Banks and the old Savings Banks 2,464,510, or one to every 12 persons, showed an increase of 127,856.

Government Insurances and Annuities.

As will be seen from the table, the number of policies effected with the Government through the Post Office increased from 1,789 at the close of 1868 to 2,168 at the close of 1869; the amount insured from 134,824*l.* to 164,397*l.* This gives an average insurance of 75*l.* 16*s.* 6*d.* to each insurer; 76*l.* 2*s.* 5*d.* in England, 68*l.* 8*s.* in Scotland, and 77*l.* 4*s.* 8*d.* in Ireland, at average annual premiums of 3*l.* 7*s.* 8*d.*, 2*l.* 2*s.*, and 2*l.* 12*s.* respectively.

The number of immediate annuities rose from 874 at the close of 1868 to 1,226 at the close of 1869; the amount from 18,789*l.* to 25,600*l.* The number of deferred annuities from 160 to 193, and the amount from 2,971*l.* to 3,789*l.*

Returned Letters.

	Total Number of Returned Letters.		Number restored to the Writers.		Number reissued to corrected Addresses.		Number returned unopened to Foreign Countries.		Number destroyed or in hand.	
	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.	1868.	1869.
England and Wales	3,258,207	3,280,208	2,790,285	2,849,451	117,684	109,283	109,754	113,265	240,484	208,209
Scotland - -	274,283	276,308	235,183	234,822	15,962	14,665	5,859	6,926	17,279	19,895
Ireland - -	282,819	298,222	170,576	176,234	18,164	10,006	20,016	28,456	74,063	83,526
United Kingdom -	3,815,309	3,854,738 Increase 39,429	3,196,044	3,260,507 Increase 64,463	151,810	133,954 Decrease 17,856	135,629	148,647 Increase 13,018	331,826	311,630 Decrease 20,196

Of these letters, 14,932 were posted without any address at all, among which were 256 containing money to the aggregate amount of 2,810*l.*

Registered Letters.

In London the number of registered letters passing through the post, including those containing coin and compulsorily registered, rose from 1,933,295 in 1868 to 2,046,138 in 1869, and in the United Kingdom from 2,577,329 to 2,727,763, an increase in each case of 5 8 per cent., of which, however, letters on the public service account for the greater portion.

To go no further than these figures, there can be no doubt that the number of registered letters bears only a very small proportion indeed to the number containing enclosures of value. This can be explained only by supposing that the chance of an ordinary letter arriving at its destination is so immeasurably greater than the chance of its being lost, that many persons prefer incurring the risk, such as it is, to purchasing comparative safety at the cost of a fee for registration.

Miscellaneous.

In January of the present year the Post Office undertook the management of the telegraphs. The preparations that had to be made were on a large scale, and involved so excessive an amount of labour, that, although I am not now treating of the internal administration of the department, I cannot refrain from paying at least a passing tribute to the zeal and endurance of those who cheerfully undertook the task, and, as the time drew on, gave to it literally their whole time, night as well as day; but upon the telegraphs themselves, remaining as they did at the close of the year in the hands of the companies, any remarks would be out of place in the present report, and must be reserved for the next.

Want of space had begun to make itself so inconveniently felt, that it became necessary, in the course of the autumn, to close the public hall of the Post Office, and to fit it up for the purposes of the department. This hall, running through the centre of the building, and divided by rows of massive Ionic columns supporting the roof, formed a very important feature in the original elevation, and I had hoped it might be possible to reopen it so soon as the new Post Office, now in course of erection, should be completed; but now the contemplated reduction of postage upon newspapers makes another large room indispensable, and space for the purpose cannot be found, except over the hall. This will, I regret to state, effectually preclude the possibility of re-opening the hall to the public.

In 1869 changes were introduced into the department which must eventually have a very important bearing upon the question of cost. Dating from a time when stealing a letter was a capital offence, a rule existed prohibiting any one under the age of 16 from taking part in any Post Office duties whatever. Without under-rating the importance of debarring persons who had not arrived at years of discretion from having access to letters, I was at a loss to understand why, by the exclusion of all but men, a forced rate of remuneration should be kept up for easy and irresponsible duties; and accordingly, with your lordships' full approbation, I introduced several classes of boys at wages varying according to their age. The work on which these boys are employed is done, I understand, just as expeditiously and as well as it was before.

In 1869, owing to a rearrangement of Post Office work on the railways, a considerable reduction took place in the number of travelling sorters. As these men, in addition to their wages, receive an allowance for every trip they make by railway, their transfer to stationary duties would have involved them in serious loss, had not means been taken to prevent it. The railway or travelling sorters are exposed to a variety of risks from which the stationary sorters are exempt, and working, as they do, at night by the aid of gas, often under severe pressure, and always when travelling at a high rate of speed, they break down after a comparatively short service, and come upon the pension list. It appeared to me, therefore, that any arrangement would be imperfect which should aim only at securing the men against loss in view of the contemplated reductions, without attempting to apply a remedy to what, when the travelling Post Office should have been a little longer in existence, must become a great practical inconvenience. To secure this twofold object, I sought and obtained your lordship's authority for the creation of a class, to which every travelling sorter, after a given period of service as such, or at any time, if disabled in the discharge of his duties, should have the right of admission; this class to be reserved exclusively for stationary duty, and to entitle its members to a trip compensation allowance of 5*s.* a week, in addition to his wages, subject to the single restriction that no more than 30 such allowances should be paid at any one time. As the travelling sorters borne on this class would, with few exceptions, be employed in the room of stationary sorters, the number of the latter was of course to be kept short to a corresponding extent. By this means I was enabled to give effect at once to reductions which must otherwise have been indefinitely postponed, and the foundation was laid of a permanent arrangement, which, as tending to check a premature swelling of the pension list, is hardly less in the interest of the revenue than in that of the men themselves.

The following table gives the amount of superannuation and compensation allowances which began and which ceased to be paid in the year 1869.

Nature of Allowance.	Began.	Ceased.	Increase.	Decrease.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Superannuation - -	9,348 8 5	7,537 0 5	1,811 8 0	—
Compensation - -	—	113 15 0	—	113 15 0

In the Appendix will be found the usual tables showing the gross and net revenue of the Post Office during the last ten years, the force and expenditure of the department during the same period, and the operations of the Post Office Savings Bank, as well as the Government Insurances and Annuities, from the dates on which those two branches of business were respectively commenced.

I have the honour to be,
My Lords,
Your obedient Servant,
HARTINGTON.

General Post Office,
8 August 1870.

APPENDIX.

TABLE I.

Gross and Net Revenue.

Year.	Gross Revenue from Letters, Books, Packets, &c.	Money Order Commission.	Gross Revenue collected by the Post Office.	Produce of the Impressed Stamp on Newspapers collected by Inland Revenue Office.	Total Postal Revenue.	Total Cost of Post Office Service.	Net Revenue.
	£	£	£	£	£	£	£
1860	3,267,662	121,693	3,389,355	141,810	3,531,165	2,831,137	700,028
1861	3,402,691	127,866	3,530,557	134,571	3,665,128	3,161,411	503,717
1862	3,496,635	136,954	3,633,589	130,415	3,764,004	2,932,095	831,909
1863	3,730,073	144,226	3,874,299	125,15	3,999,455	2,962,051	1,037,404
1864	3,957,047	151,979	4,109,026	122,532	4,231,558	3,078,297	1,153,261
1865	4,142,086	157,113	4,299,199	124,409	4,423,608	2,941,086	1,482,522
1866	4,311,457	166,430	4,477,887	121,780	4,599,667	3,201,681	1,397,986
1867	4,376,044	172,085	4,548,129	120,085	4,668,214	3,246,850	1,421,364
1868	*4,391,270	175,612	*4,566,882	116,764	*4,683,646	3,266,724	*1,416,922
1869	4,472,746	176,480	4,649,226	115,349	4,764,575	†3,459,227	1,305,348
Average Net Revenue of first Five Years						—	£845,264
Ditto second ditto						—	£1,404,828

* In the last annual report it was stated that, for the purposes of comparison between the years 1867 and 1868, the sum of 217,664*l.* should be added to the Revenue of the latter year, that being the difference arising out of a change in the system of accounts between the amounts charged in those two years as Postage of Public Departments; and for the same reason, before comparing the years 1868 and 1869, the sum of 14,797*l.* should be added to the Revenue of the year 1869.

† The largely increased cost of the Post Office Service in the year 1869 is principally due to exceptional payments on account of the Packet Service, as shown in the Statement of Force and Expenditure, Table II.

TABLE II.

Force and Expenditure.

Date.	Force.		Cost of Collection and Delivery, of Management, and of Money Order Business.					Cost of Conveyance of Mails.						Total Cost of Post Office Service.
	Effective.	Non-Effective.												
	Staff Officers, Postmasters, Clerks, Sorters, Stampers, Messengers, Guards, Letter Carriers.	Pensioners.	Salaries, Wages, Pensions, Travelling Allowances, Poundage on Sale of Stamps, Commission on Money Order business, Cost of Uniform Clothing, Medical Expenses, and Cost of Substitutes during annual Holidays or Sickness of Officers and Men, Official Postage, Law Charges, and Incidental Expenses.	Manufacture of Postage Stamps, *i.e.*, Printing, Paper, and Miscellaneous Charges.	Stationery.	Buildings and Repairs, Rents, Rates, Taxes, Fuel, and Light.	Total Cost of Collection, Delivery, and Management, and of Money Order Business.	Conveyance by Coaches, Carts, and Omnibuses.	Conveyance by Railways.	Cost of Supply and Repair of Mail Bags and Boxes, Tolls, and Ferriage, Cost of Apparatus for Exchange of Bags conveyed by Railway, and Miscellaneous Expenses.	Conveyance of Mails by private Ships and by Packets under Contract with Admiralty or Post Office.	Conveyance of Mails over Isthmus of Suez and Isthmus of Panama, and in other Foreign Parts, and Salaries of Admiralty Agents and other Officers in charge of Foreign and Colonial Mails.	Total Cost of Conveyance.	
	£	£	£	£	£	£	£	£	£	£	£	£	£	£
1860	25,192	765	1,140,396	19,177	42,174	62,215	1,263,962	150,368	490,223	26,985	869,952	29,647	1,567,175	2,831,137
1861	25,376	862	1,214,303	19,414	34,781	85,702	1,354,200	152,508	655,046	25,929	940,657	33,071	1,807,211	3,161,411
1862	25,285	927	1,249,268	19,261	31,365	84,795	1,384,689	152,280	526,966	22,393	821,067	24,700	1,547,406	2,932,095
1863	25,492	1,017	1,254,605	18,485	32,182	81,548	1,386,820	149,333	538,512	20,189	837,655	29,542	1,575,231	2,962,051
1864	25,637	1,131	1,322,945	19,750	32,561	39,730	1,414,986	145,089	565,852	21,807	900,610	29,953	1,663,311	3,078,297
1865	25,082	1,274	1,295,153	22,064	32,396	75,331	1,424,944	140,517	528,220	22,220	796,399	28,786	1,516,142	2,941,086
1866	25,594	1,423	1,368,157	23,234	34,989	182,627	1,609,007	139,888	586,085	21,336	817,467	27,898	1,592,674	3,201,681*
1867	25,902	1,559	1,421,854	23,684	33,033	236,592	1,715,163	140,069	559,575	22,434	783,845	25,764	1,531,687	3,246,850†
1868	26,262	1,756	1,440,144	25,000	39,014	214,522	1,718,680	139,553	578,927	18,769	777,097	33,698	1,548,044	3,266,724‡
1869	26,910	1,871	1,455,251	25,000	40,788	115,123	1,636,162	139,316	583,596	17,533	1,056,798	25,822	1,823,065	3,459,227§

* Including £73,267 paid under the Post Office Extension Act, the greater portion of which has been charged to Buildings, &c.
† Including £158,121 ditto ditto.
‡ Including £105,202 ditto ditto.
§ Including £17,544 ditto ditto.

TABLE III.

Post Office Savings Bank.

Period.	1 Number of Post Office Savings Banks.	2 Number of Deposits.	3 Amount of Deposits.	4 Average Amount of Deposit.	5 Interest credited to Depositors.	6 Number of Withdrawals.	7 Amount of Withdrawals.	8 Average Amount of Withdrawal.	9 Charges of Management.	10 Average Cost of each Transaction, viz., of each Deposit or Withdrawal.	11 Number of Accounts opened.	12 Number of Accounts closed.	13 Number of Accounts remaining open at close of the Year.	14 Amount, inclusive of Interest, standing to credit of all open Accounts at close of the Year.	15 Average Amount standing to credit of each open Account at close of the Year.	16 Total Sum standing to credit of Post Office Savings Banks on Books of National Debt Commissioners at close of the Year.	17 Balance in hands of Postmaster-General, after allowing for Charges of Management, at close of the Year.	18 Total Balance in hand, applicable to payment of Depositors, at close of the Year.	19 Number of Old Savings Banks and Post Office Banks combined, at close of the Year.	20 Number of the Depositors in Old Savings Banks and Post Office Banks combined, at close of the Year.
From 16th Sept. 1861 to 31st Dec. 1862 - -	2,585	639,216	£ 2,114,669	£ s. d. 3 6 2	£ 22,189	97,294	£ 438,637	£ s. d. 4 10 2	£ 20,591	d. $6\frac{1}{10}$	265,928	27,433	178,495	£ 1,698,221	£ s. d. 9 10 3	£ 1,659,032*	£ 35,692	£ 1,694,724*	3,157	1,732,555
Year 1863 - -	2,991	842,848	£ 2,651,209	£ s. d. 3 2 11	£ 55,204	197,431	£ 1,027,154	£ s. d. 5 4 0	£ 25,401	d. †$5\frac{1}{10}$	185,934	44,760	319,669	£ 3,377,480	£ s. d. 10 11 4	£ 3,328,182*	£ 44,413	£ 3,372,595*	3,594	1,876,389
„ 1864 - -	3,081	1,110,762	£ 3,350,000	£ s. d. 3 0 3	£ 100,493	309,242	£ 1,834,849	£ s. d. 5 18 8	£ 45,856	d. †$7\frac{7}{10}$	226,153	74,964	470,858	£ 4,993,123	£ s. d. 10 12 1	£ 4,995,663*	£ 5,522	£ 5,001,185*	3,659	1,967,663
„ 1865 - -	3,321	1,302,309	£ 3,719,017	£ s. d. 2 17 1	£ 132,870	407,412	£ 2,318,610	£ s. d. 5 13 10	£ 49,527	d. $6\frac{8}{10}$	239,686	99,160	611,384	£ 6,526,400	£ s. d. 10 13 6	£ 6,582,329*	£ 4,327	£ 6,586,656*	3,822	2,078,346
„ 1866 - -	3,507	1,525,871	£ 4,400,657	£ s. d. 2 17 8	£ 169,172	515,348	£ 2,975,054	£ s. d. 5 15 4	£ 59,451	d. $6\frac{6}{10}$	266,542	131,672	746,254	£ 8,121,175	£ s. d. 10 17 7	£ 8,231,176*	£ 25,791	£ 8,256,967*	4,058	2,156,290
„ 1867 - -	3,629	1,592,344	£ 4,643,906	£ s. d. 2 18 4	£ 207,649	581,972	£ 3,222,800	£ s. d. 5 10 9	£ 62,700	d. $7\cdot006$	264,341	155,612	854,983	£ 9,749,929	£ s. d. 11 8 0	£ 9,867,703*	£ 47,690	£ 9,915,393*	4,268	2,239,347
„ 1868 - -	3,813	1,757,303	£ 5,333,638	£ s. d. 3 0 8	£ 252,897	637,144	£ 3,669,809	£ s. d. 5 15 2	£ 61,860	d. $6\frac{6}{10}$	289,366	179,195	965,154	£ 11,666,655	£ s. d. 12 1 9	£ * 11,963,053	£ Nil.	£ * 11,899,400	4,331	2,336,654
„ 1869 - -	4,047	1,998,644	£ 5,787,218	£ s. d. 2 17 10	£ 297,392	716,466	£ 4,227,056	£ s. d. 5 17 11	£ 62,060	d. $5\frac{5}{10}$	323,723	203,092	1,085,785	£ 13,524,299	£ s. d. 12 9 1	£ 13,755,547	£ 19,386	£ 13,774,933	4,554	2,464,510

* These sums do not include the dividends accruing to the Post Office Savings Banks on the 5th January, that is, five days after the close of the account in each year, up to the year 1866 inclusive, but after that year the Securities belonging to the Banks have been valued by the Commissioners for the Reduction of the National Debt, and the amount, including dividends due but not paid at the end of the year, has been inserted in the above return.

† The falling off in the cost per transaction during 1863 and the increase in that cost during 1864 are attributable to one and the same cause, viz., to the payment during 1864 of various charges properly belonging to 1863.

Table IV.

Post Office Savings Bank.

Balance Sheet.

Return of the Balance Sheets of the Post Office Savings Banks for the Year 1869, showing the Balance due to Depositors, the Amount of Expenses remaining Unpaid, the Value of Securities at the Cost Price less depreciation of those which are Terminable by Lapse of Time, Amount of Cash in hand and Dividends accrued but not received at the end of the Year, and the Surplus or Deficiency of Funds to meet Liabilities.

Liabilities.	£ s. d.	Assets.	£ s. d.	£ s. d.
Balance due to Depositors on the 31st December 1869 (including interest) - -	13,524,209 1 1	Value of Securities at the Cost Price less depreciation of those which are Terminable by Lapse of Time - - -	13,474,940 2 4	
Amount of Expenses remaining unpaid (partly estimated) -	25,000 0 0	Amount of Cash in hands of Commissioners for the Reduction of the National Debt - - - -	18,801 11 1	
Surplus of Funds to meet Liabilities -	225,723 12 10	Dividends accrued but not received at the end of the year - - - -	261,805 7 11	
		Total Amount in the hands of the Commissioners for the Reduction of the National Debt - -	- - -	13,755,547 1 4
		Less,—Balance due to the Postmaster General - - - and Amount required to meet the Payment of Warrants issued, but not cashed on 31st December 1869 - -	36,683 7 4 17,297 15 9	19,385 12 7
£	13,774,932 13 11		£	13,774,932 13 11

	£ s. d.
Total Amount received from Depositors, including Interest, to 31 December 1869 - - -	33,238,181 7 2
Total Amount repaid to Depositors, to 31 December 1869 - - - - - - -	19,713,972 6 1

Number of Transactions.		Number of Accounts.		
Deposits.	Withdrawals.	Opened.	Closed.	Remaining open.
10,769,297	3,462,309	2,001,673	915,888	1,085,785

The total cost of the Post Office Savings Banks from their establishment to the 31st December 1869, including the sum of 25,000*l.* charged as above, was 398,163*l.* 5*s.* 5*d.*

The total number of Transactions, *i.e.*, Deposits and Withdrawals, in the period was 14,231,606.

d.

The average cost of each Transaction was 6·71.

Prior to the passing of the Post Office Savings Bank Act, 1861, it was estimated (*see* Parliamentary Paper, No. 523, 1861) that the average cost of each transaction would be 7*d.*

General Post Office,
30 June 1870.

Geo. Chetwynd,
Receiver and Accountant General.

Balance Sheet—*continued.*

RETURN of the BALANCE SHEETS of the POST OFFICE SAVINGS BANKS for the Year 1869, showing the Balance due to Depositors, the Amount of Expenses remaining Unpaid, the Value of Securities at the Cost Price less depreciation of those which are Terminable by Lapse of Time, Amount of Cash in Hand, and Dividends accrued but not received at the end of the Year, and the Surplus or Deficiency of Funds to meet Liabilities. (So far as relates to the NATIONAL DEBT OFFICE.)

Securities standing in the Names of the Commissioners for the Reduction of the National Debt on account of the Post Office Savings Banks Fund.		Value of such Securities at the Cost Price, less Depreciation of those which are Terminable by Lapse of Time, exclusive of dividends accrued but not received.	Dividends accrued but not received at the end of the Year.
	£ s. d.	£ s. d.	£ s. d.
Consolidated £3 per Cents - -	3,324,062 0 10	3,039,324 14 0	48,506 0 2
Reduced £3 per Cents - -	555,000 0 0	510,204 1 7	3,979 10 7
New £3 per Cents - - -	2,938,006 19 3	2,673,472 13 11	21,066 9 6
New £2¾ per Cents - - -	1,000,000 0 0	765,000 0 0	12,160 6 6
Exchequer Bonds - - -	600,000 0 0	600,000 0 0	5,802 4 2
Turkish Guaranteed £4 per Cent. Bonds	115,900 0 0	116,082 13 5	1,914 17 4
Bonds of Metropolitan Board of Works	778,100 0 0	778,100 0 0	14,899 19 1
Annuities for Terms of years ending 5th April 1885 - - -	(*a*) 420,575 8 3 per annum	4,932,347 2 8	152,420 17 4
Red Sea and India Telegraph Annuities, expire 4th August 1908 - -	(*b*) 3,100 0 0 per annum	60,408 16 9	1,255 3 3
	£	13,474,940 2 4	261,805 7 11
Add Value of Securities - -			13,474,940 2 4
Cash Balance in Bank of England -			18,801 11 1
		£	13,755,547 1 4

NOTE.—The value on 31st December 1869 of the several Terminable Annuities (*a* and *b*) in Column 1. will be found by adding the sums in Columns 2 and 3 together.

National Debt Office,
30 June 1870.

A. Y. SPEARMAN,
Comptroller General.

I.

An Account of all Moneys received by the Commissioners for the Reduction of the National Debt, and of the Disposal thereof, on account of Contracts for the Grant of Deferred Life Annuities, made between the 1st January and the 31st December 1869, under the Provisions of the Act 27 & 28 Vict. c. 46. s. 2.

On Account of Deferred Life Annuities.

	£ s. d.	Sums received. £ s. d.		£ s. d.	Sums paid. £ s. d.
To Balance due 31st December 1868		873 17 6	For the purchase of 4,234*l.* 7*s.* 10*d.* New 3*l.* per Cents		3,909 10 2
To purchase of Deferred Life Annuities, viz.:—			For the purchase of 444*l.* 9*s.* 9*d.* Reduced 3*l.* per Cents		407 5 3
Granted through the medium of the Commissioners for the Reduction of the National Debt	2,147 11 6		By Premiums on Deferred Annuity Contracts, Money Returnable, repaid to Contractors		628 8 10
Granted through the medium of the Postmaster-General	2,062 11 4		By Balance uninvested on 31st December 1869, viz.:—		
		4,210 2 10	In hands of Postmaster-General	£224 9 0	
Dividends on Stock and other Securities		498 19 2	In the Bank of England	413 6 3	
					637 15 3
		£5,582 19 6			£5,582 19 6

Also, Accounts showing the Amount of Receipts during the Year on Contracts; the Number and Amount of Payments made on account of Contracts during the Year; the Amount of Expenses during the Year; the Number and Amount of New Contracts entered into; the Total Number and Amount of all current Contracts at the End of the Year; the whole Amount of Capital, distinguishing the manner in which Invested, how much in Cash, how much in Securities, specifying their Nature; the Average Rate of Interest received upon each Class of Investments, and the Table of Mortality and the Rate of Interest used in calculating the Premiums.

Amount of Receipts during the Year on Contracts.	Number and Amount of Payments made on account of Contracts during the Year.	Amount of Expenses during the Year.	Number and Amount of New Contracts entered into.		Total Number and Amount of all Current Contracts at the End of the Year.		Capital and Average Rate of Interest upon each Class of Security.				
			No.	Amount.	No.	Amount.	Uninvested Balance.	New 3*l.* per Cents.	Average Rate of Interest.	Reduced 3*l.* per Cents.	Average Rate of Interest.
£ s. d.				£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
4,210 2 10	Nil	See Return from the Postmaster General accompanying this account.	68	1,679 15 0	280	6,038 0 0	637 15 3	18,825 13 11	3 6 4	144 9 9	3 5 6

The law of mortality which has been observed in the construction of the Deferred Annuity Tables is set forth in the Observations Nos. 13 and 20 of the Report made on the 28th March 1829 to the Lords of the Treasury by the Actuary of the Commissioners for the Reduction of the National Debt, and printed by Order of the House of Commons on 31st March 1829, in Parliamentary Paper 122. The rate of interest fixed by law for annuities granted under the Savings Banks Acts is 3½ per cent.; for other Deferred Annuities granted by the Commissioners for the Reduction of the National Debt under the Act 10 Geo. 4. c. 24, the rate depends upon the price of the public funds on the day the annuity is purchased.

National Debt Office,
30 March 1870.

A. Y. Spearman,
Comptroller General.

II.

An ACCOUNT of all Moneys received by the Commissioners for the Reduction of the National Debt, and of the Disposal thereof, on account of Contracts for the Grant of Payments on Death, made between the 1st January and the 31st December 1869, under the Provisions of the Act 27 & 28 Vict. c. 46. s. 2.

	Sums received.		Sums paid.
	£ s. d.		£ s. d.
Balance due 31st December 1868	739 7 3	For the purchase of 4,827*l.* 5*s.* 2*d.* New 3*l.* per Cents	4,451 17 8
For Insurances granted through the medium of the Postmaster-General	5,044 19 11	For the purchase of 351*l.* 11*s.* 4*d.* Reduced 3*l.* per Cents	322 2 5
Dividends on Stock	410 4 4	For Payments on Death	537 17 6
		Uninvested Balance on 31st December 869, viz.:—	
		In hands of Postmaster-General — £184 19 11	
		In Bank of England — 697 14 0	
			882 13 11
	£6,194 11 6		£6,194 11 6

Also, ACCOUNTS showing the Amount of Receipts during the Year on Contracts; the Number and Amount of Payments on account of Contracts during the Year; the Amount of Expenses during the Year; the Number and Amount of New Contracts entered into; the Total Number and Amount of all Current Contracts at the End of the Year; the whole Amount of Capital, distinguishing the manner in which Invested, how much in Cash, how much in Securities, specifying their Nature; the Average Rate of Interest received upon each Class of Investments; and the Table of Mortality and the Rate of Interest used in calculating the Premiums.

Amount of Receipts during the Year on Contracts.	Number and Amount of Payments made on account of Contracts during the Year.		Amount of Expenses during the Year.	Number and Amount of New Contracts entered into.		Total Number and Amount of all Current Contracts at the End of the Year.		Capital and Average Rate of Interest upon each Class of Security.				
	No.	Amount.		No.	Amount.	No.	Amount.	Uninvested Balance.	New 3*l.* per Cents.	Average Rate of Interest.	Reduced 3*l.* per Cents.	Average Rate of Interest.
£ s. d.		£ s. d.			£ s. d.		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
5,044 19 11	10	537 17 6	*See* Return from the Postmaster General accompanying this statement.	422	32,670 13 2	2,168	164,391 18 8	882 13 11	16,359 7 4	3 5 9	351 11 4	3 5 6

The law of mortality which has been observed in the construction of the Tables for the insurance of lives of both sexes is that known as the "English Life Table," No. 3, "for Males," published under the authority of the Registrar General of Births, Deaths, and Marriages in England; the rate of interest being taken at 3*l.* per centum per annum, as fixed by the Act 27 & 28 Vict. c. 43. s. 5.

National Debt Office,
30 March 1870.

A. Y. SPEARMAN,
Comptroller-General.

POST OFFICE.

(A.)

AN ACCOUNT showing the Amount received by Her Majesty's Postmaster-General for the Purchase of DEFERRED ANNUITIES and MONTHLY ALLOWANCES, under 27 & 28 Vict. c. 43., from the 1st January to 31st December 1869, and the Disposal of the same.

Receipts.	Amount.	Payments.	Amount.
	£ s. d.		£ s. d.
Balance on 31st December 1868 brought forward - -	167 16 10	Cash paid to the Commissioners for the Reduction of the National Debt for Deferred Annuities and Monthly Allowances - - -	2,005 19 2
Cash received for the purchase of Deferred Annuities and Monthly Allowances, viz. :—		Balance in the hands of Her Majesty's Postmaster General on the 31st December 1869 -	224 9 0
£ s. d.			
Money not returnable - 929 12 2			
Money returnable - - 1,132 19 2			
	2,062 11 4		
	£2,230 8 2		£2,230 8 2

(B.)

AN ACCOUNT showing the Amount received by Her Majesty's Postmaster-General on account of CONTRACTS for the Payment of SUMS at DEATH, under Act 27 & 28 Vict. c. 43., from the 1st January to the 31st December 1869, and the Disposal of the same.

Receipts.	Amount.	Payments.	Amount.
	£ s. d.		£ s. d.
Balance on 31st December 1868 brought forward - -	272 5 10	Cash paid to the Commissioners for the Reduction of the National Debt for Investment on account of Contracts for payment of Sums at Death -	5,132 5 10
Cash received on account of Contracts for payment of Sums at Death - - - -	5,044 19 11	Balance in the hands of Her Majesty's Postmaster on 31st December 1869 - - -	184 19 11
	£5,317 5 9		£5,317 5 9

(C.)

AN ACCOUNT showing the Amount received by Her Majesty's Postmaster-General for the Purchase of IMMEDIATE ANNUITIES, under Act 27 & 28 Vict. c. 43., from the 1st January to 31st December 1869, and the Disposal of the same.

Receipts.	Amount.	Payments.	Amount.
	£ s. d.		£ s. d.
Balance on 31st December 1868 brought forward - -	1,889 15 0	Cash paid to the Commissioners for the Reduction of the National Debt for the purchase of Immediate Annuities	72,523 15 11
Cash received for the purchase of Immediate Annuties -	74,401 13 6	Balance in the hands of Her Majesty's Postmaster-General on the 31st December 1869 -	3,767 12 7
	£76,291 8 6		£76,291 8 6

General Post Office,
March 1870.

GEO. CHETWYND,
Receiver and Accountant-General.

TABLE V.

GOVERNMENT ANNUITIES AND INSURANCES GRANTED UNDER ACT 27 & 28 VICT. CAP. 43.

An ACCOUNT showing the Number and Amount of Sums received and paid, and the Number and Amount of Contracts granted by Her Majesty's Postmaster General, under authority of the Act 27 & 28 Vict. c. 43., from the Commencement of Business on the 17th April 1865 to the 31st December 1869, together with the Number and Amount of Contracts in existence on the 31st December 1869, and the Amount paid for Charges of Management.

(J.) An Account showing the Number and Amount of Sums received and paid on Account of Government Annuity and Insurance Contracts from the Commencement of Business on the 17th April 1865 to the 31st December 1869.

	Receipts.						Payments.					
	From 17 April 1865 to 31 December 1868.		From 1 January to 31 December 1869.		Total.		From 17 April 1865 to 31 December 1868.		From 1 January to 31 December 1869.		Total.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.
		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.
To Cash received for the purchase of Annuities, viz.:—							By Cash paid to the Commissioners for the Reduction of the National Debt for Investment on account of Sums received for the purchase of Annuities -	–	214,440 11 4	–	74,529 15 1	–	288,970 6 5
For Immediate Annuities	875	207,412 5 6	352	74,401 13 6	1,227	281,813 19 0	By Annuities paid - - -	2,323	25,762 8 6	1,895	19,925 11 0	4,218	45,687 19 6
For Deferred Annuities and Monthly Allowances, Money not returnable - - -	210	4,528 18 9	99	929 12 2	309	5,458 10 11	By Premiums on Deferred Annuity Contracts, Money returnable, repaid to Contractors -	32	475 9 4	10	380 1 10	42	855 11 2
For Deferred Annuities and Monthly Allowances, Money returnable - - -	777	4,556 18 11	286	1,132 19 2	1,063	5,689 18 1	By Cash paid to the Commissioners for the Reduction of the National Debt for investment on account of premiums received on Contracts for Sums payable at Death - - - - -	–	11,504 13 6	–	5,132 5 10	–	16,636 19 4
To Cash received for Fees on Annuity Contracts (the Charges for Monthly Allowances being included in the Premiums) - -	–	1,081 8 7	–	385 15 0	—	1,467 3 7	By Cash paid under Contracts for Sums payable at Death - -	17	1,122 17 4	10	537 17 6	27	1,660 14 10
To Cash received from the Commissioners for the Reduction of the National Debt for payment of Annuitants, viz:—							By Balance remaining in the hands of the Postmaster General on 31 December 1869, viz:—						
Gross - £ 26,464 6 7		20,753 8 6					On account of Annuity Contracts, including Fees - £ 5,921 5 5						
Less Income Tax 119 5 9		92 18 5					Less Balance due from National Debt Commissioners on account of Sums paid at Death, but not Recovered from National Debt Commissioners at Date - 17 6 1						
	–	26,345 0 10	–	20,660 10 1	—	47,005 10 11		–	- -	–	5,903 19 4	–	5,903 19 4
To Cash received on account of Contracts for the payment of Sums at Death - - - -	16,724	11,776 19 4	7,814	5,044 19 11	24,538	16,821 19 3							
To Cash received from the Commissioners for the Reduction of the National Debt, for the Payment of Amounts due under Contracts for Sums payable at Death - - - - -	–	989 18 9	–	468 10 1	—	1,458 8 10							
		£ 256,691 10 8	–	103,023 19 11	—	359,715 10 7			£ 253,306 0 0	–	106,409 10 7	–	359,715 10 7

(II.) AN ACCOUNT showing the Number and Amount of CONTRACTS entered into by Her Majesty's Postmaster-General from the Commencement of Business on the 17th April 1865 to the 31st December 1869, and the Number and Amount of Contracts in existence on the 31st December 1869.

	CONTRACTS GRANTED.				TOTAL.	
	From 17 April 1865 to 31 December 1868.		From 1 January to 31 December 1869.			
	No.	Amount.	No.	Amount.	No.	Amount.
		£ s. d.		£ s. d.		£ s. d.
Contracts for Annuities granted from the commencement of business on 17th April 1865 to the 31st December 1869, viz.:—						
Immediate Annuities	874	18,789 17 2	352	6,811 0 0	1,226	25,600 17 2
Deferred Annuities and Monthly Allowances, Money not returnable	68	1,290 11 0	18	391 7 0	86	1,681 18 0
Deferred Annuities and Monthly Allowances, Money returnable	130	2,421 3 0	27	653 8 0	157	3,074 11 0
Contracts for Sums payable at Death granted from the commencement of business on the 17th April 1865 to the 31st December 1869	1,882	141,681 9 10	422	32,670 13 2	2,304	174,352 3 0
Contracts for Annuities in existence on the 31st December, 1869, viz.:—						
Immediate Annuities	- -	- - -	- -	- - -	1,198	25,096 7 2
Deferred Annuities and Monthly Allowances, Money not returnable	- -	- - -	- -	- - -	78	1,533 3 0
Deferred Annuities and Monthly Allowances, Money returnable	- -	- - -	- -	- - -	115	2,256 10 0
Contracts for Sums payable at Death in existence on the 31st December 1869	- -	- - -	- -	- - -	2,168	164,391 18 8

(III.) AN ACCOUNT showing the Amount paid for CHARGES of MANAGEMENT from the Commencement of Business on the 17th April 1865 to the 31st December 1869.

	From 17 April 1865 to 31 December 1868.	From 1 January to 31 December 1869.	TOTAL.
	£ s. d.	£ s. d.	£ s. d.
Salaries and Allowances	989 13 5	443 2 9	1,432 16 2
Stationery	1,413 19 4	3 2 6	1,417 1 10
Stamps on Policies	90 0 0	17 10 0	107 10 0
Fees to Medical Officers	240 0 0	51 12 6	291 12 6
Incidental Disbursements, including Travelling Charges	13 4 7	0 13 0	13 17 7
Works executed and Furniture supplied	250 5 10	- - -	250 5 10
Postage	223 9 6	- - -	223 9 6
TOTAL AMOUNT paid for charges of management, including furniture, books, stationery, and preliminary expenses	3,220 12 8	516 0 9	3,736 13 5
Fees received on the grant of certain Annuities	1,081 8 7	385 15 0	1,467 3 7

General Post Office,
March 1870.

GEO. CHETWYND,
Receiver and Accountant-General.

LONDON:
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Reports from Commissioners.
Vol. 16.

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Session 1870

Vol. XXVII.

1870

Reports from Commissioners

[C. 179] Fourth Annual Report of the Warden of the Standards on the Proceedings and Business of the Standard Weights and Measures Department of the Board of Trade. for 1869-70

[C. 143] Report of the Meteorological Committee of the Royal Society for 1869.

1870

FOURTH ANNUAL REPORT

OF THE

WARDEN OF THE STANDARDS

ON THE

PROCEEDINGS AND BUSINESS

OF THE

STANDARD WEIGHTS AND MEASURES DEPARTMENT

OF THE

BOARD OF TRADE.

FOR 1869-70.

Presented to both Houses of Parliament in pursuance of 29 & 30 *Vict. c.* 82. *s.* 12.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY.
FOR HER MAJESTY'S STATIONERY OFFICE.

1870.

[C. 179.] *Price 2d.*

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FOURTH ANNUAL REPORT

OF THE

WARDEN OF THE STANDARDS

ON THE

PROCEEDINGS AND BUSINESS OF THE STANDARD WEIGHTS AND MEASURES DEPARTMENT.

To be laid before Parliament, in pursuance of s. 12 of the Act 29 & 30 Vict. c. 82., the Standards of Weights, Measures, and Coinage Act, 1866.

TO THE BOARD OF TRADE.

Verification of local standards.

THE ordinary business of the Standards Department being the comparison and verification of the local standards of weights and measures, including gas measuring standards, which are used by the inspectors of weights and measures in the several districts throughout the United Kingdom, the following tabular form shows, in continuation of former Reports, the progress of work of this description done in the Department during the past year; including the reverification of local standards, under the provisions of the Act of 1859, 22 & 23 Vict. c. 56. s. 1, as regards Great Britain, and the Weights and Measures (Ireland) Act, 1860, 23 & 24 Vict. c. 119. s. 8, enacting that no copies of the standard weights shall be legal, unless reverified every five years, and copies of the standard measures every ten years:—

TABLE of Number of Local Standards of Weights and Measures officially verified and reverified in each Year since 31st March 1859.

In the Year ending 31st March.	Number of Standards verified for the First Time.								Number reverified.								Total Number verified and reverified.
	Avoirdupois Weights.	Troy Weights.	Measures of Capacity.	Measures of Length.	Bullion Weights.	Total Number of Standards, excluding Gasholders.	Number of Districts of Inspection, and of Indentures.	Gas Measures.	Avoirdupois Weights.	Troy Weights.	Measures of Capacity.	Measures of Length.	Bullion Weights.	Total Number of Standards.	Number of Districts of Inspection and of Indentures.	Gas Measures.	
1860 - - -	795	60	144	15	—	1,014	20	—	1,487	90	1,098	103	—	2,778	157	3,792	
1861 - - -	539	15	67	9	—	630	21	—	660	90	514	52	—	1,316	73	1,946	
1862 - - -	652	34	149	16	—	851	20	112	731	71	470	42	30	1,344	78	2,307	
1863 - - -	564	1	127	9	30	731	23	40	611	15	434	38	—	1,098	67	1,869	
1864 - - -	519	10	52	6	—	587	16	—	729	40	332	30	60	1,191	61	1,778	
1865 - - -	430	30	34	2	60	556	12	—	683	10	188	15	—	896	71	1,452	
1866 - - -	507	—	8	9	50	574	15	1	760	45	277	25	30	1,137	83	1,712	
1867 - - -	432	35	53	15	60	595	17	6	827	132	329	30	30	1,348	70	1,949	
1868 - - -	750	10	34	2	—	796	13	3	1,407	50	660	50	—	2,167	147	2,966	
1869 - - -	690	40	37	4	85	856	10	3	1,087	155	577	51	52	1,922	121	2,781	
1870 - - -	162	60	75	10	22	329	23	5	809	30	404	36	—	1,279	142	1	1,614
Total -	6,040	295	780	97	307	7,519	190	170	9,791	728	5,283	472	202	16,476	1,070	1	24,166
Of which there were substituted to replace old standards worn or lost - -	4,620	87	50	17	—	4,774	—	—									

There is no legal provision for the verification of Gasholders.

It will be seen from this Table that the total number of standards verified and reverified in the department during the past year is considerably less than during either of the two preceding years. This was to be expected in the first year after the expiration of the first decennial period and the second quinquennial period from the passing of the Act requiring their periodical reverification.

Another cause in the decrease of the number of official reverifications in the department is the continued practice of transferring the inspection of weights and measures from boroughs to the counties, together with the provision of law authorising the local reverification of all the remaining sets of copies of county standards with one of the county sets, which shall have been duly reverified in the Standards Department.

Standards rejected after comparison.

The following Table shows the number of standards rejected or returned for re-adjustment, after comparison in the department, in each of the last two years, their exact errors being notified to the weight and scale makers, who act as agents for the local authorities, as stated in my Third Report:—

Number of Standards rejected as requiring Re-adjustment.

Year ending 31st March.	Weights.				Measures.				Total Weights and Measures.	Percentage on Total Number verified.
	Avoirdupois.	Troy.	Bullion.	Total.	Capacity.	Length.	Gas.	Total.		
1869	203	10	67	280	37	24	1	62	342	13
1870	79	3	24	106	49	16	2	67	173	11

Description and average errors of standards rejected.

The descriptions of standards rejected in 1869–70, and the average errors of each description, are shown in the following statement. It also exhibits the working of the regulation for a provisional scale of allowance for errors in the official comparison of standards, contained in Appendix II. to my Second Report:—

NUMBER of Local Standards of each description rejected during the Year ending 31st March 1870, and their average errors.

WEIGHTS.

Denomination of Standards rejected.	Number of each.	Average Errors.		Errors tolerated in Excess or in Deficiency.
		In Excess.	In Deficiency.	
Avoirdupois:		Grains.	Grains.	Grains.
56 lbs. - -	23	16	10	5
28 „ - -	5	7	7	„
14 „ - -	3	9	—	„
7 „ - -	4	3	—	2
1 „ - -	23	0·5	—	0·25
8 ozs. - -	7	0·5	0·4	„
Carried forward -				

Denomination of Standards rejected.	Number of each.	Average Errors.		Errors tolerated in Excess or in Deficiency.
		In Excess.	In Deficiency.	
Avoirdupois:		Grains.	Grains.	Grains.
Brought forward -				
4 ozs. - -	5	0·34	—	0·25
2 „ - -	1	0·33	—	„
8 drams - -	2	0·1	—	0·05
4 „ - -	6	0·08	—	„
Total -	79			
Troy, 1824:				
12 ozs. - -	1	—	—	0·1
6 „ - -	1	—	—	„
3 „ - -	1	—	—	„
Total -	3*			
Bullion:				
20 ozs. - -	1	0·68	—	0·25
10 „ - -	4	0·36	0·22	0·025
5 „ - -	4	0·43	0·23	„
4 „ - -	2	0·16	—	„
3 „ - -	1	0·23	—	„
1 „ - -	1	0·05	—	0·005
0·5 „ - -	2	0·07	0·05	„
0·4 „ - -	2	0·04	0·09	„
0·2 „ - -	1	—	0·01	„
0·1 „ - -	1	—	0·03	„
0·02 „ - -	2	0·03	0·01	„
0·01 „ - -	2	0·02	0·01	„
0·005 „ - -	1	—	0·04	„
Total -	24			

MEASURES.

Capacity:		Cubic inches.	Cubic inches.	Cubic inches.
Bushel - -	4	1·22	0·91	0·87
½ „ - -	7	0·62	—	0·43
Peck - -	5	—	0·25	0·22
½ gallon - -	4	0·21	—	0·175
½ pint - -	4	0·57	—	0·44
Gill - -	13	0·42	—	0·23
½ „ - -	12	0·22	—	0·11
Total -	49			
Length:				Inch.
Yard - -	16†	—	—	0·005
Total -	16			
Gas measurers:		Cubic foot.		Cubic foot.
10 f. gasholders -	3	0·06	—	0·05
Total -	3			

* Errors not ascertained; rejected for bad workmanship.

† The average errors of the standards of length cannot be stated numerically, no means having been provided until 3rd Dec. 1869 for ascertaining the actual amount of differences of local standard yards from the imperial standard. Many of the yards were also rejected without comparison, for bad workmanship.

Number of places with illegal standards.

In my last Report, reference was made to the districts of inspection of weights and measures throughout the United Kingdom, where there were none but illegal standards from their not having been duly reverified; and a list of the several places was appended, showing that in 123 places there were no legal standard weights, and in 73 places no legal standard measures. Out of these places, 21 boroughs in England and Wales, one borough in Scotland, and two counties have either had their standards reverified, or the inspection has been transferred from the borough to the county. It will appear from the list now appended, made up to 31st March 1870, that at this date there were 114 places in the United Kingdom without legal standard weights, and 85 places without legal standard measures.

Appendix I.

This list has been prepared from the information contained in the official books of the Standards Department. But the following fact will show that there may be other places where the verification and inspection are carried out without having legal standards, and which have not come under official notice.

Lostwithiel standards not verified since 1741.

A set of standard weights and measures of the borough of Lostwithiel has been recently delivered at the Standards Office for reverification, bearing the date of 1741, and the Exchequer Stamp of Verification of the reign of George II. It is stated that these standards have been in use up to the present time in the borough. They appear to be in good condition, considering their age. No record of the verifications of this date, or of any standards for Lostwithiel, can be found in the department, the official books beginning with the year 1824.

The following is a list of these standards and their errors :—

Lostwithiel Standards.	Error in excess or in deficiency.
Weights :—	
28 lbs. Avoir. -	— 33 grains.
4 „ „ - -	— 15·5 „
2 „ „ - -	— 10·5 „
1 „ „ - -	— 6·5 „
Measures of capacity :—	
Half bushel - -	+ 10·831 cubic inches or $1\frac{1}{4}$ gill.
Half gallon - -	+ 3 cubic inches.
Pint - - -	+ 2 „
Half gill - - -	— 0·07 „

A cylindrical piece of metal about $\frac{1}{4}$ inch high has been added to the measures of a half bushel, half gallon, and half gill, evidently with the view of making up the difference between the several parts of a Winchester bushel and an Imperial bushel; the capacity of the Winchester bushel has been variously estimated at from 2,150 to 2,178 cubic inches, whilst the legal capacity of the Imperial bushel is 2218·191 cubic inches, the mean difference being 54 cubic inches, or about a pint and a half.

Completion of re-verification of official standards.

During the past year the reverification of all the official standards has been completed by the most accurate comparisons of the standard measures of capacity and the gas measuring standards. In no single instance has any material error been found in one of the official standards, either of length, weight, capacity, or volume, which could affect injuriously the accuracy of the copies verified in the department for the use of the local inspectors, as proper standards for testing commercial weights and measures.

The ascertained errors of the standard avoirdupois weights have been stated in my First Report for 1866–7, as well as the result of the preliminary comparisons of the troy standards, the exact relation of these latter to the Imperial Standard, together with that of the official standard yard, having been shown in my Second Report for 1867–8. It was stated in my Third Report, that the reverification of the standard measures of capacity had been delayed until the arrangements for a supply of fresh distilled water had been completed by the construction of a still for departmental use, and until the official thermometers and barometers had also been accurately reverified.

A further delay in the verification, both of the standard measures of capacity and the gas measuring standards, has arisen from the reverification of the standard units of weights upon which these two sets of standard measures are based, being first required to be completed.

Reverification of standard 10 lb. weight, and of primary measures of capacity.

The unit of capacity for measures of liquids and dry commodities, under s. 6. of 5 Geo. 4. c. 74, is the imperial gallon, containing 10lbs. avoirdupois weight of water, at the temperature of 62° Fahrenheit, the barometer being at 30 inches ; the quart being one-fourth of the gallon, and the pint one-eighth ; and eight such gallons being an imperial bushel.

A standard 10lb. weight of brass, and primary standard measures of an imperial gallon, quart, pint, and bushel, all of gun metal, were accordingly constructed, and having been accurately verified by Captain Kater, were deposited at the Exchequer in 1825, and declared to be legal standards.

A second 10lbs. weight of gilt gun metal was constructed in 1854, and was accurately verified in terms of the new imperial standard by Professor W. H. Miller. A third standard weight of 10lbs. has also been recently constructed of Baily's metal, to serve as a working standard.

The verification of these last-mentioned standard weights of 10lbs. each, or 70,000 grains, and the reverification of the above-mentioned primary standard measures of capacity, have been effected with the following results :—

Exact relation to the Imperial Standard of the following standard 10lbs. weights (=70,000 grains), in November 1869.

		grains.
Standard 10lb.	K = 10lbs. +	0·24972
„	M = 10lbs. +	0·22333
„	O = 10lbs. +	0·54593

EXACT RELATION to the Imperial Standard of the following primary standard measures of capacity, in February 1870.

Imperial Standard Measures of Capacity.	Legal Standard Weight of Contents of distilled Water at 62° Fahr. Bar. at 30 Inches.		Legal Capacity in Cubic Inches.	Ascertained Error.	
	In Lbs. Avoirdupois.	In Grains.		In Grains.	In Cubic Inches.
Bushel +	80	560·000	2218·191	+172·360	+ 0·683
Gallon -	10	70·000	277·274	— 3·813	— 0·015
Quart -	2·5	17·500	69·318	+ 0·030	+ 0·000
Pint -	1·25	8·750	34·659	— 0·793	— 0·003

Considerable difficulties, as well as discordances, were experienced in the weighings of so large a quantity of water in a cylindrical vessel of the capacity of the imperial bushel, and some further observations will be made with this standard as soon as some apparatus for the purpose, which is now being constructed, shall have been furnished. The verification of the standard gallon, quart, and pint, which are conical measures, is quite satisfactory.

Reverification of official standard measures of capacity.

The official standard measures of capacity used for comparing copies for the use of the local inspectors of weights and measures, constitute a full set. They have been in use since 1834. They are also made of gun metal, and are cylindrical. These standard measures of capacity have been verified by the same mode as the more primary standard measures just described, by weighing their contents of distilled water, and making the necessary corrections for reducing the weighings to the standard temperature and atmospheric pressure. Previously to the weighing, it is ascertained that each standard measure is exactly filled with water by passing a glass disc, the under surface of which is a true plane, over the rim of the vessel and the surface of the water. Each measure is furnished with a glass disc for this purpose. The several comparisons were made in the months of September and October 1869, at temperatures of the water varying from 51° to 69° Fahrenheit, and barometric pressure from 29·31 to 30·19 inches. The results are shown in the appended copy of the circular notice issued to manufacturers of standard weights and measures, dated 8th December 1869.

Appendix II.

It was subsequently found that the rims of the standard measures of the bushel, half bushel, and peck, as well as the half gill, had been somewhat damaged by constant use, during the 36 years from 1834 to 1870, and these four standards were consequently readjusted by Messrs. De Grave and Co., and their rims brought to a true plane. Upon their return to the Standards Department, they were again verified in March 1870, by weighing their contents of distilled water. The last results of the reverification of the whole series of official standard measures of capacity employed for the comparison of local standards for the use of inspectors, is shewn in the following table:

Exact Relation of the Official Standard Measures of Capacity to the Imperial Standard.

Official Standard Measures of Capacity.	Legal Standard Weight of contents of distilled Water, at 62° Fahrenheit, Barometer at 30 ins.			Legal Capacity.	Ascertained Standard Weight of contents of distilled Water.	Ascertained Error.		Error tolerated in verifications of Local Standards, either in excess or in deficiency.	
	In Lbs. Avoir-dupois.	In Ozs.	In Grains.	In Cubic Inches.	In Grains.	In Grains.	In Cubic Inches.	In Grains.	In Cubic Inches.
Bushel - -	80	..	560,000	2,218·191	559,907·955	−92·044	−0·365	218·750	0·87
Half bushel -	40	..	280,000	1,109·096	279,961·165	−38·835	−0·154	109·375	0·43
Peck - -	20	..	140,000	554·548	140,039·572	+39·572	+0·157	54·687	0·22
Gallon- -	10	..	70,000	277·274	70,000·205	+ 0·205	+0·001	54·687	0·22
Half gallon -	5	..	35,000	138·637	34,994·488	− 5·512	−0·022	43·750	0·175
Quart - -	2·5	40	17,500	69·318	17,498·197	− 1·803	−0·007	43·750	0·175
Pint - -	1·25	20	8,750	34·659	8,749·537	− 0·463	−0·002	21·875	0·087
Half pint -	0·625	10	4,375	17·329	4,374·999	− 0·001	−0·000	10·937	0·044
Gill - -	0·3125	5	2,187·5	8·664	2,187·270	− 0·221	−0·001	5·468	0·023
Half gill -	0·15625	2·5	1,093·75	4·332	1,093·660	− 0·090	−0·000	2·734	0·011*

* Or a bubble of air under the glass disc about the size of a pea.

The errors thus stated in parts of a cubic inch are computed from the legal weight of a cubic inch of distilled water, vizt., 252·458 grains, per 5 Geo. 4. c. 74. s. 5.

Reverification of gas measuring standards.

The mode of reverifying the gas measuring standards has been similar to that by which they were originally verified under the immediate superintendence of the Astronomer Royal in 1860. The reverification of the standard cubic foot bottle, which is the only legal standard or unit of measure for the sale of gas under the Act of 1859, was first proceeded with. This standard measure is declared to contain the weight of 62·321 lbs. avoirdupois (or 436,247 grains) of distilled water at the standard temperature and atmospheric pressure, and to be of the cubic capacity of 1728 cubic inches. Its reverification was effected in the same manner as that of the standard measures of capacity, the mean of several weighings in the month of October 1869 being taken, at temperatures of the water varying from 53°69 to 55°50 and barometric pressure 29·95 to 30·19 inches. The results have been as follows:—

The standard gun metal weight of 62·321 lbs. was in the first place ascertained, in December 1869, to weigh 62·32105 lbs., or to be exactly 0·00005 lbs. or 0·394 grains, in excess of its imperial standard weight. This was its weight after readjustment, it having been found to be several grains too heavy, upon its first comparison some months before.

The contents of distilled water in the standard cubic foot bottle were found, upon comparison with the standard gun metal weight of 62·321 lbs., to weigh 62·337 lbs., or 436,362·40392 grains, being 0·016 lb., or 115·40392 grains too heavy, the consequent excess of capacity or cubic measurement being 0·457 cubic inches.

The three gas measuring standards of 1, 5, and 10 cubic feet respectively have been reverified by first transferring the contents of ordinary air from the standard cubic foot bottle, to the 1

cubic foot measure, and then making the necessary corrections for the ascertained error of the standard cubic foot bottle, as well as for the actual temperature of the air in each standard, and the barometic pressure upon the air in the gas measuring room, and for the mechanical pressure upon the air contained in the standard. The two larger standards were verified by a similar process of successively transferring the contents of air from the 1 cubic foot measurer to the 5 and 10 feet measurers.

The following are the mean results of several comparisons made in March 1870, the thermometer ranging from 61°05 to 63°50 Fahrenheit, and the barometer from 29·62 to 30·41 inches.

EXACT RELATION of the gas measuring standards to the Imperial Standard.

Gas Measuring Standards.	Ascertained Volume, $t = 62°$ F. $b = 30$ In.	Ascertained Error.	Error tolerated in Verifications of Local Standards $\frac{1}{2}$ per Cent. either in Excess or in Deficiency.
	Cubic feet.	Cubic foot.	Cubic foot.
1 cubic foot measurer -	0·99947	— 0·00053	0·005
5 „ „ -	4·99333	— 0·00667	0·025
10 „ „ -	9·97505	— 0·02495	0·050

The results of these reverifications have been submitted to the Standards Commission, and considered by them to be very satisfactory. They are also referred to in their Fourth Report. All the details of the comparisons have been laid before the Commission in a printed form, in order that they may hereafter be appended to their Fifth Report, relating to the Standards Department, and its operations, standards, and apparatus.

Verification of new standards.

Great progress has been made during the past year in the verification of the new standards furnished to the Department.

New set of standard avoirdupois weights.

The new set of avoirdupois standard weights, made of Baily's metal, has been accurately verified, and the exact errors of each in relation to the imperial standard determined. This set has been taken into use as the working set for the comparison of local standard weights. The whole set of counterpoises, made of brass, has been accurately adjusted, and are now little liable to change from oxidation, as their surfaces are nearly saturated with oxide. The old official standard avoirdupois weights have also been adjusted to their true weight, and, having been since accurately reverified in the Department, will become valuable standards of reference.

Series of 14 auxiliary standard weights of 1 lb.

For the more satisfactory verification of the larger standard avoirdupois weights, a series of fourteen weights of 1 lb. each has been constructed of Baily's metal, as auxiliary standards,

and each of these weights has been verified separately with one of the gilt gun metal standard pounds, and its exact relation to the imperial standard determined. The density of each of these bronze weights has also been ascertained by weighings in air and in water, according to the method employed by Professor Miller, and described in his account of the construction of the new imperial standard pound.

Working set of standard decimal grain weights.

In addition to the standard set of decimal grain weights, from 1,000 to 0·01 grain, referred to in the Third Report, a second set has been accurately verified, in order to serve as a working set for official comparisons.

Standard postal weights of $\frac{1}{3}$ and $\frac{2}{3}$ oz.

New standard weights of $\frac{1}{3}$ and $\frac{2}{3}$ oz. avoirdupois have been constructed for foreign postal services, and the circumstances relating to them are stated in the Fourth Report of the Commission. The exact weight of these new gun metal standards has been determined as follows:—

Standard $\frac{1}{3}$ oz. avoirdupois weight = $\frac{1}{3}$ oz. + 0·00643 grain.
„ $\frac{2}{3}$ „ = $\frac{2}{3}$ oz. + 0·01153 „

Construction of glass standard weights.

Under the directions of the Standards Commission, a set of standard avoirdupois weights is now being constructed of glass, by Mr. Oertling, and Messrs. Chance of Birmingham, with a view of ascertaining how far, with reference to the cost, durability, and invariability of such weights, the surface not being liable to oxidation, it may be desirable that glass should be used as the material for local standard weights.

Standard weights for coin.

The Coinage Act, 1870, 33 Vict. c. 10, passed early in this Session, has imposed new duties on the Standards Department. The custody of the standard trial plates of gold and silver used for determining the justness of the gold and silver coins of the realm at the trial of the pyx, and the performance of all duties in relation to such trial plates, have been added to the business of the Department.

The performance of all duties relating to the standard weights for weighing and testing the coin of the realm has also been made part of the business of the Department, and new standard weights of the several denominations of the gold, silver, and bronze coins, 16 in number, according to a schedule annexed to the Act, are now being constructed under the provisions of the Act. As soon as these standard coin weights shall have been duly verified and made legal standards by an order of Her Majesty in Council, regulations will be issued under which any copies of the standard coin weights may be verified and marked or stamped in the Department, and no weights, other than those so marked or stamped, are to be deemed just weights for determining the weight of gold and silver coins of the realm.

New standard imperial measures of capacity.

In pursuance of the recommendations of the Standards Commission, new standard measures of $\frac{1}{6}$ and $\frac{1}{12}$ gallon, as measure of the wine bottle and half wine bottle, have been constructed, and are now being verified.

Standard glass burette measures, and delivering apparatus.

A complete set of new standard imperial measures of capacity, from the quart downwards, including also a series of measures of decimal grain weights of distilled water at the temperature of 62° Fahr., have also been constructed by Messrs. Griffin. These measures are in the form of glass burettes, each of which is fitted with a brass collar and screw at the upper part, so that it can be attached to an apparatus made for the purpose, in order that it may be filled with water up to a defining line on the narrow tube of the burette, and made to deliver the exact measure of water. A provisional defining line has been marked on a slip of paper upon each of these burettes, and the standard measure of each is now being verified in the department with the greatest possible precision. A duplicate set is provided, so that in the event of any one of these glass vessels being accidentally broken, it may be at once replaced by a new burette, to be verified by its duplicate measure.

Similar delivering apparatus of larger denominations.

A filling and delivering apparatus for standard measures of capacity upon the same principle is also being constructed, together with a new standard cubic foot bottle of similar white metal to that of which the standard gas measures were originally made in 1859. This metal is an alloy of pure tin with a definite proportion of antimony, considered to be an anticorrosive metal, and which has satisfactorily borne the test of ten years' use. The apparatus with which the new cubic foot bottle is connected, is being constructed so that standard measures to deliver the exact legal contents of water of an imperial bushel, peck, gallon, and half gallon may be attached to it, thus completing a set of standard imperial measures of capacity upon this principle.

Completion of verification of subdivisions of the imperial yard.

The verification of all the subdivisions marked upon the new subdivided standard of imperial length has now been completed, and the exact length of an imperial foot and inch, and of their several subdivisions, has been accurately determined in relation to the imperial standard yard.

And of new official standard yard.

The new commercial standard of imperial length, consisting of the yard, divided into feet and inches, with tenths and twentieths of inches, is also completed; and the length of the yard marked upon it having been accurately verified, this new measuring bar is now adopted as the official standard yard for the verification of all copies for the use of local inspectors, any error being read off to 0·001 inch, by means of a vernier and eye piece attached to the apparatus upon which the new commercial standard of length is worked.

See Appendix II.

Before the measures of a foot and inch and the minor subdivisions can be used as standards for the verification of copies to be used by local inspectors, by which to compare measures for common use, it will be necessary that they be legalised by Order in Council, and that the requisite regulations for the official comparisons be laid down by the Board of Trade.

New standards of 6 feet and 10 feet.

Under the directions of the Standards Commission, new standards of 6 and 10 feet, consisting of steel beds with line subdivisions

into feet and inches, and of steel end measures, have been recently constructed, and will be accurately verified, with a view to their legalization and official use.

Public and mural standards of length.

Arrangements are in progress for laying down public standards of the chain and links or decimal parts, both on the imperial and metric system; and official communications are now in progress between this Department and the Office of Works as to a suitable site for these public standards. They will be accompanied by mural standards of the yard with its subdivisions, and the metre with its subdivisions. These mural standards have already been constructed by Messrs. Troughton and Simms.

Copies of the official imperial measures to be presented to the French Government.

Upon the recommendation of the Standards Commission, and with the concurrence of Her Majesty's Government, a complete set of copies of the official imperial standards is now being constructed, for presentation to the French Government. They are now nearly completed, and will be accurately verified in the Standards Department; after which, they will be sent to be deposited with the collection of standards at the Conservatoire Imperial des Arts et Metiers, at Paris.

Official standards of the metric system.

A complete set of official standards of the metric system, as referred to in my Third Report, has now been verified by comparison with the platinum metres of the Royal Society, and the platinum kilogram of the Standards Department, these platinum standards having been accurately verified with the primary standards at the Archives in Paris.

The new end standard metre of steel gilt, with the ends of a very hard alloy, is now nearly completed by Messrs. Troughton and Simms.

The French Government having at once acceded to the request made by Her Majesty's Government, in pursuance of the recommendation of the Standards Commission, to furnish for the use of this department verified copies of the primary metric standards, as well as of the local metric standards, and apparatus supplied to the several Bureaux de Verification throughout France, I received the directions of the Board of Trade to accept the invitation of General Morin, the Directeur du Conservatoire Imperial des Arts et Metiers, at Paris, to assist in the verification of these copies of the metric standards. The requisite observations were made by M. Tresca, the Sous Directeur du Conservatoire Imperial des Arts et Metiers, and myself, in the months of October and November last year, during which time the following metric standards were compared:—

A brass metre à bouts, or end standard.
A brass metre à traits, or line standard.
Two gilt brass kilograms
A brass litre.

A full account of these standards and of their comparisons, together with the instruments of verification used, has been drawn up and agreed upon by us. Unfortunately, one of the kilograms

became damaged by some mercury accidentally coming in contact with it during some observations with the stereometer for determining its density, after all the weighings had been made. It will consequently be replaced with another kilogram, which will be similarly verified. Some further observations are also needed with the new standard metres. For this purpose it has been considered desirable to suspend the completion of the verifications until I can again be present to assist in the operations, during the approaching Autumn.

Copies of Steinheil's glass metre and crystal kelogram.

The construction and verification of copies of Dr. Von Steinheil's glass metre and rock crystal kilogram, which were referred to in my Third Report, are being proceeded with by him at Munich.

Copy of the Austrian standard klafter.

The efforts of the Commission to obtain a copy of the Austrian standard of length, the klafter, as an historical standard, to be deposited in the Standards Department, have been unsuccessful. In reply to a request to this effect made by Her Majesty's Government, it has been stated in a despatch from the Imperial Ministry for Foreign Affairs at Vienna to the Earl of Clarendon, that the Austrian Government regretted they were unable to accede to the request, in consequence of being informed by the Imperial Ministry of Commerce that the klafter measure in use does not possess the requisite accuracy, and that the preparation of one of these measures would take a considerable time.

Additions to Standard apparatus of the department.

Together with the construction of new standards, some of which have been described as having apparatus attached to them, considerable additions have been made to the other valuable apparatus of the department for the comparison of standards during the past year, or are in progress of construction.

Two new standard thermometers have been constructed at the Kew Observatory, and presented to the department by the Kew Committee; and several other new thermometers have been obtained, and have been verified at Greenwich.

A complete set of new balances, of the best modern construction, for the more accurate comparison of local standard weights, so as to enable their exact errors to be noted, is now being provided for the department by Messrs. De Grave and Co., and will be substituted for the old balances, of a more ordinary description, which were constructed by Mr. Bate, and have been in use since 1824.

A new balance of the finest construction, for weighing kilograms, has been constructed by Mr. Oertling.

A new balance for weighing the smaller imperial and metric weights under 30 grains, has also been constructed.

A new vacuum balance is being made, for which some valuable suggestions have been given by Professor Miller, with a view of contriving that all the requisite arrangements for weighing according to Gauss's method of changing the weights, as well as for adding or subtracting balance weights, can be made without opening the case or any disturbance of the vacuum.

A stereometer, for ascertaining the density of standard weights, has been constructed by Messrs. Troughton and Simms.

An improved cathetometer, for the most accurate reading of the height or distance of vertical defining lines, with both an imperial and metric scale of length marked upon it, is being constructed for the use of the department.

The requisite apparatus for making a new determination of the weight of a cubic foot of water is being constructed, with the aid of Professor Miller. This will consist of a cylinder of sufficient size, and an appropriate measuring apparatus. It should be observed that the existing legal weight of a cubic foot of water, which is the basis of our Gas Measuring Standards, rests upon the determination by Sir George Shuckburgh, in 1798, of the weight of a cubic inch of water, and consequently that any possible error in this determination must be magnified 1,728 times.

A revolving drill apparatus, on the principle of the pentagraph, is being constructed by Messrs. Troughton and Simms, for officially marking standards, instead of stamping them according to the old method with a punch and hammer.

Additions to the Standards Library.

Many additions have been made to the standards library during the last year of English, American, French, and German works, having reference to standards or operations connected with them. Amongst these are copies of Dr. Neumayer's Meteorological and Magnetic Observations, in two 4to volumes, presented by the Government of Victoria; and three large 4to volumes of the Royal Society's Catalogue of Scientific Papers, presented by the Royal Society.

Rooms added to the Standards Office.

Increased accommodation has also been given to the Standards Department by the addition of several new rooms to the office, which now includes all the three floors of the Old Norman Jewel Tower.

Old Norman Jewel Tower.

From the great thickness of the stone walls of the tower, the rooms in this building are very favourable for standard operations, being free from vibration, and not liable to sudden fluctuations of temperature. The large room in the basement, which has a beautifully groined vaulted roof, is fitted up as a weighing room, with all the finest balances. The adjacent room is fitted for containing all the glass fluid measures, and for making comparisons with them. The large room on the first floor is intended to be exclusively used for containing the standards of length, and the new microscopical comparing apparatus, together with the vertical comparateur, and for operations with them. The new rooms on the upper floor are now completed for containing the large collection of older standards of an antiquarian or historical character, for which purpose appropriate cases will be procured. The old roof of these upper rooms, with its large beams of chestnut wood, has been completely restored by the Office of Works, after considerable difficulties were overcome arising from its decayed state. The whole of the interior of the building has in fact been made to correspond as nearly as possible with its appearance when originally completed in the reign of Richard II.

Third and Fourth Reports of the Standards Commission.

Much of the time and attention of the officers of the Standards Department, more particularly of the Warden of the Standards, has been given in the past year to the business of the Standards Commission, as well as to the preparation of the voluminous papers to be appended to their reports. During this period, the Commission have issued their Third Report on the abolition of Troy Weight, and their Fourth Report on the Inspection of Weights and Measures. In the event of the recommendations contained in these and the two former reports of the Commission being carried into effect, a large increase of the duties and responsibility of the Standards Department must necessarily arise.

Appendix to Fourth Report.

The printing of the Appendix to the Fourth Report of the Commission is now nearly completed, and will shortly be issued. Amongst the appended papers are the following, which were laid before the Commission after they had agreed upon the Report.

Indian Weights and Measures Act, 1870.

A copy of the Indian Weights and Measures Act, 1870, for the adoption of the metric system throughout India, so soon as the necessary preliminary steps shall have been completed, by procuring proper metric standards for the verification of the weights and measures, and organizing a sufficient staff of standard officers, as well as regulating their districts and duties.

The various proceedings which led to the promulgation of this Act are referred to in Appendix III. to the Second Report of the Commission (pp. 94–99), and in the following Commons Papers, No. 16 of 1867, and No. 225 of 1870. With the view of giving effect to the Act, Colonel Strachey, a member of the Governor General's Council for making laws and regulations, and who has taken a very active part in the amelioration of Indian weights and measures, has arrived in London, and has been placed officially in communication with me for the purpose of considering the manner in which the new Indian Weights and Measures Act shall be brought into operation. The subject is a large and important one, and will take much time and deliberation in properly working out.

Canadian weights and measures.

A copy of a Report of the Select Committee of the Canadian Senate, on the subject of establishing an uniform international decimal system of weights, measures, and coins throughout the dominion of Canada, is also appended to the Fourth Report. It may be seen that it is proposed by the committee that the course recommended by the Standards Commission with respect to the introduction of the metric system into the United Kingdom should be adopted in Canada, and that another session should not pass without the Government introducing a Bill for that object.

Regulations and instructions for establishing the metric system in North Germany.

Another important paper has been appended to the Fourth Report of the Commission, being a translation of the General Regulations and Official Instructions for establishing the metric system of weights and measures throughout the North German Confederation, in pursuance of the law of 17 August 1868. A consideration of these detailed regulations and instructions, as well as of similar documents relating to the metric system in France, which have been appended to the Second Report of the Com-

mission, will much facilitate the framing of the Regulations and Instructions which have been recommended by the Commission to be drawn up in relation to the weights and measures of the United Kingdom.

Preparation for Fifth Report.

Great progress has also been made for the preparation of the Fifth Report of the Commission, which it is proposed shall relate to the establishment and business of the Standards Department, including the verification of all the official standards, and the apparatus and operations connected with them.

International Standards Commission at Paris.

In concluding this Report, reference may be made to the appointment of the International Commission at Paris, for the construction of new primary metric standards. This subject was mentioned in a postscript to my last annual report. Since this period, it was brought under the consideration of the French Academy of Sciences and of the French Government. The result was an official report to the Emperor, dated 1st Sept. 1869, which was approved by the Imperial signature, and which includes appointment of a French Commission to meet at Paris, of which M. Mathieu is appointed president.

In pursuance of the terms of this report, invitations have been sent to other governments to send delegates to take part in this International Standards Commission, with the view that every country in which the metric system has been adopted, or its adoption contemplated, may be furnished with uniform primary copies of the metric standards at Paris of the highest possible accuracy.

This invitation has been accepted by the governments of the following countries, the probable number of members of the Commission being also as follows:—

	Probable Members of the Commission.	
1. Austria and Hungary	4	
2. Bavaria	1	(not yet nominated).
3. Belgium	3	
4. Chili	1	
5. Columbia	1	
6. Spain	1	
7. Equator	1	
8. United States of America	2	
9. Great Britain	3	
10. Greece	1	
11. Italy	1	(not yet nominated).
12. Netherlands	3	
13. Peru	1	
14. Portugal	2	
15. North German Confederation	1	
16. Russia	3	
17. Sweden and Norway	2	
18. Switzerland	1	

	Probable Members of the Commission.
19. Turkey	1
20. Wurtemberg	1
21. Venezuela	1
22. France	10
Total	45 members.

Baden, Brazil, Denmark, and Hesse abstain from taking part in the Conference. From the Pontifical States and from Saxony no replies have yet been received.

The French members of the Commission are as follows:

M.M. Mathieu,
General Morin,
Le Verrier,
Laugier,
Fizeau,
General Jarras,
Deville,
Delaunay,
Tresca.

The following members of the Standards Commission have been appointed by Her Majesty's Government to be delegates from this country to the Conference at Paris:—

G. B. Airy, Astronomer Royal, &c.
Professor W. H. Miller, F.R.S., &c.
H. W. Chisholm, Warden of the Standards.

The opening of the Conference is fixed for Monday, 8th August next, at Paris.

H. W. Chisholm,
Warden.

Standards Department,
27 June 1870.

APPENDIX I.

List of Places in the United Kingdom, for which Copies of the Official Standards have been verified, but have not been duly re-verified in the Standards Department within the periods prescribed by law; made up to 31st March 1870.

Note.—Places marked thus * have no legal standard troy weights, and thus † no legal standard measures of length.

County.	City, Borough, &c.	Date of last Verification.	
		Avoirdupois Weights.	Measures.
	ENGLAND.		
Bedford	County	—	1859
Berks	Abingdon	1861	—
	Reading	1860	1860
	Windsor	1864	—
	Farringdon Manor	1827	1827
Cheshire	Chester	—*	1860
	Congleton	1863	—
	Macclesfield	1859	1834
Cornwall	Falmouth	1860	—
	Launceston	1850	1850
	Penryn	1835	1835
	Penzance	1826	1826
Cumberland	Workington	1854	—
Devon	County	1864	—
	Bideford	1860	—
	Bradninch	1863	—
	Exmouth	1838	1838
	Holsworthy Manor	1836	1836
	Tiverton	1858	1858
Dorset	Lyme Regis	1864	—
Durham	County	—	1859
	Gateshead	1846*	1846
Essex	Colchester	1865	1859
	Saffron Walden	—	1859
Gloucester	Wooton-under-Edge	1829	1829
Hants	Andover	1860	1860
	Basingstoke	1860*	1860
	Winchester	—*	1859
	Stockbridge	1826	1826
Herts	County	—	1859
	Hitchin	1826	1826
	Cheshunt (Manor)	1856	1826
Kent	Chatham	1826	1826
	Deal	1826	1826†
	Gravesend and Milton	1864	1859
	Lydd	1825	1825
	Queenboro'	1835*	1835

County.	Borough, &c.	Date of last Verification.	
		Avoirdupois Weights.	Measures.
	Ramsgate	1835	1835
	Rochester	—	1860
	Romney	1826	1826
	Woolwich, St. Mary	1863	—
	Swancombe Manor	1827	1827
Lancashire	Salford	1864*	—
	Rochdale Manor	1826	1826
Lincoln	Stamford	—	1860
Monmouth	County	—	1860
Norfolk	New Buckenham	1826	1826
	Thetford	1851	1851
Northampton	Higham Ferrers	1844	1844
Northumberland	Tynemouth	1862	—
	Alnwick Manor	1836	1836
	Corbridge, &c. Manor	1852	1852
	Hexham Manor	1840	1840
	Rothbury Manor	1836	1836
	Warkworth Manor	1836	1836
Oxford	County	1865	—
	Chipping Norton	1863	—
Salop	Bridgnorth	—	1859
Somerset	Bath	1864	—
	Yeovil	1859	1859
	Wiveliscombe	1861	—
Stafford	Bilston Market	1849	1849
	Burslem	1826	1826
	Stafford	1864	—
	Tamworth	1826	1826
	Walsall	1865*	1859
Suffolk	Bury St. Edmunds	1860	—
	Orford	1825	1825
	Southwold Manor	1853	1853
Surrey	Kingston	1826	1826
Sussex	Arundel	1862	—
	Brighton	1864*	—
	Pevensey	1862	—
	Rye	1826	1826
	Winchelsea	1861	1826
Wiltshire	Aldborne	1826	1826†
Worcester	Bewdley	1860	1860
	Droitwich	1862	—
	Worcester	—	1860
Yorkshire	Kirkgate Manor	1858	1858
	Hull	1826	1826
	Honley Manor	1856	1856

County.	City, Borough, &c.	Date of last Verification.	
		Avoirdupois Weights.	Measures.
WALES.			
Brecon	Brecon	1852	—
Carnarvon	Pwllheli	1860	—
Flint	County	1864	—
	Flint	1861	—
Montgomery	County	—	1860
Pembroke	Tenby	1862	—
Radnor	Rhayader	1829	1829
SCOTLAND.			
Ayr	Ayr	1860	1860
	Kilmarnock	1862*	—
Banff	County	1859	1859
Berwick	County	1860	—
	Lauder	1826	1826
Bute	County	1825	1825
	Rothesay	1826	1826
Clackmannan	Culross	1826	—
Cromarty	County	1826*	1826
Dumfries	Annan	1863	—
Fife	County	1865*	1859
	Anstruther	1863	—
	Burntisland	1860	1860
	Dunfermline	1826	1826
	Kircaldy	1859	1859
	St. Andrew's	—	1859
Forfar	Brechin	1826	1826
	Montrose	1826	1826
Haddington	County	1860	1860
	Berwick	1826	1826
Lanark	Lanark	1826	1826
Linlithgow	County	1863	—
Renfrew	Pollockshiels	1840	1840
	Renfrew	1860*	1860
Ross	Tain	1860	—
Stirling	Falkirk	1861*	—
Isle of Man	—	1840	1840

County.	City.	Date of last Verification.	
		Avoirdupois Weights.	Measures.
IRELAND.			
Carlow	County	1862	—
Clare	County	1856	1856
Cork	County	1861	—
Donegal	County	1862	—
Kerry	County	1863	—
Limerick	County	—	1835
Louth	County	1863	—
Meath, East	County	1863	—
Meath, West	County	1861*	—
Roscommon	County	1864	—
Tyrone	County	1858	1858
Waterford	County	1828	1828
Wicklow	County	1861	—

SUMMARY OF PLACES HAVING NO LEGAL STANDARDS.

		Standard Weights.	Standard Measures.
England	Counties	2	4
	Boroughs, &c.	69	56
Wales	Counties	1	1
	Boroughs, &c.	5	1
Scotland	Counties	7	5
	Boroughs, &c.	18	13
Isle of Man		1	1
Total in Great Britain		102	81
Ireland	Counties	12	4
Total in Ireland		12	4
Total in United Kingdom		114	85

NOTE.—The following places named in the Appendix to the Third Report have, since the date of that Report, had their Standards re verified, or have transferred the inspection to the county :—

		Number of Places.
ENGLAND	Boroughs	19
WALES	Counties	2
	Boroughs	—
SCOTLAND	Counties	—
	Boroughs	1
IRELAND	Counties	2
	Total	24

APPENDIX II.

COPY of CIRCULAR to MANUFACTURERS of STANDARD WEIGHTS and MEASURES.

Standards Department, 8th December 1869.

I HAVE to inform you that the re-verification of the official standard measures of capacity has been completed, the results being as follows :—

Denomination.	Containing Legal Weight of Distilled Water, at 62° Fahr. Barometer at 30 Inches.	Ascertained Error in Grains.	Ascertained Error in Parts of a Cubic Inch.
Official Standard :			
Bushel	80 lbs. avoirdupois	−83·343	− 0·330
Half bushel	40 „ „	−47·385	− 0·187
Peck	20 „ „	−25·492	− 0·101
Gallon	10 „ „	+ 0·205	+ 0·001
Half gallon	5 „ „	− 5·512	− 0·022
Quart	2½ „ „	− 1·803	− 0·007
Pint	1¼ „ „	− 0·463	− 0·002
Half pint	10 oz. „	− 0·001	− 0·000
Gill	5 „ „	− 0·221	− 0·001
Half gill	2½ „ „	− 0·442	− 0·002

With the approval and sanction of the Standards Commission, the necessary steps will be at once taken for the re-adjustment of the standard measures of the bushel, half bushel, and peck, the errors of which are now considerably within the errors tolerated in the departmental comparison of copies of these standards for the use of Local Inspectors of Weights and Measures. The errors of the remaining standard measures are so small as not to affect sensibly the accuracy of the copies compared with them.

In accordance with the recommendation of the Standards Commission, contained in their First Report, directions have been given for the construction of the following new measures of capacity for liquids

with the view of their being hereafter constituted legal standards, when they shall have been duly verified, so that copies may be furnished for the use of Local Inspectors.

A standard bottle, containing $\frac{1}{6}$ gallon, for wine, beer, &c.
„ half bottle „ $\frac{1}{12}$ „ „
„ 4 fluid ounce measure, containing 4 ounces avoirdupois of distilled water.
„ 2- „ „ „ 2 do.
„ 1- „ „ „ 1 do.

I have also to inform you that the re-verification of the official standard yard has been completed, and that it is found to be 0·001374 inch less than the Imperial Standard, this error being also considerably less than that tolerated in departmental comparisons.

A new commercial standard of length has been constructed for the use of the department, having an apparatus attached, with a vernier, by which any error of 0·001 inch and upwards may be noted in any copy compared with it. The length of the yard upon this new standard measure has been found not to differ sensibly from the Imperial Standard. With the approval and sanction of the Standards Commission, this new standard will henceforth be used for all comparisons of copies of the standard yard, in substitution for the official standard yard which has been in use since 1825.

The new standard measure is marked also with the following subdivisions:—

Feet,
Inches,
Twentieths of an inch,

and may be divided by means of the vernier into thousandths of inches.

As soon as the verification of these subdivisions shall have been completed, the attention of the Standards Commission and of the Board of Trade will be called to the expediency of issuing notices of regulations for the comparison of copies of this standard measure of length, and of such subdivisions as may be found most convenient.

This new standard measure is also marked with the length of the metre and its subdivision of—

Decimetres,
Centimetres, and
Millimetres,

and by means of a vernier fiftieths of a millimetre may be read. It will thus be serviceable as the official standard of metric length for comparisons of copies for the use of Inspectors, when the use of metric weights and measures shall have been sanctioned by law.

Directions have been given for the construction of a new standard measure of 10 feet, and another of 6 feet, subdivided into feet, and 1 foot into inches, in order that they may hereafter be duly verified and constituted legal standards. They will be in the form of beds, and will be accompanied with two standard bars or rods of 10 feet each, and one bar of 6 feet, copies of which will be available for the comparison and verification of surveyors chains of 66 feet and 100 feet by the Local Inspectors of weights and measures.

When these new standards shall have been duly verified and constituted legal standard measures, due notice will be given of the official regulations under which copies may be compared for the use of the Local Inspectors, by means of which the measures used for commercial purposes, and by the public, may be verified.

It has been recommended by the Standards Commission, in their

First Report, that regulations should be adopted under which comparisons with the official standards should be made, on payment of a proper fee, for manufacturing firms and other persons, who may require to have their own standards accurately verified. But this recommendation needs the sanction of the legislature before it can be carried in effect.

I am, &c.

H. W. Chisholm,

Warden of the Standards.

To

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Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.

PALL MALL
REFORM CLUB

REPORT

OF THE

METEOROLOGICAL COMMITTEE OF THE ROYAL SOCIETY,

For the Year ending 31st December 1869.

Presented to both Houses of Parliament by Command of Her Majesty.

LONDON:
PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
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PREFACE.

The Meteorological Committee consists of gentlemen who were nominated in 1866 by the Royal Society, at the request of the Board of Trade, for the purpose of superintending the Meteorological duties formerly undertaken by a Government Department, under the charge of Admiral FitzRoy.

The Committee are credited with a sum of £10,000, voted annually in the Estimates, for the administration of which they are wholly responsible, and over which they are given the entire control.

The Committee hold a meeting of some hours' duration at least once a fortnight, when every subject on which action has to be taken by their executive officers receives their careful consideration. The duties of the Committee are onerous, and *entirely gratuitous;* they were accepted, and are very willingly performed by the members, on account of the earnest desire they severally feel for the improvement of Meteorological Science.

The Committee consists of the following members :—

General Sir E. Sabine, K.C.B., President of the Royal Society, *Chairman.*

Mr. Francis Galton.
Mr. Gassiot.
The Hydrographer of the Admiralty.
Dr. W. A. Miller.
Mr. De La Rue.
Mr. W. Spottiswoode.
Colonel W. J. Smythe, R.A.

REPORT

For the Year ending December 31, 1869.

Introductory.

In this their third Annual Report the Committee have the simple task of chronicling the progress effected by the office in the several courses of inquiry, the commencement of which was fully described in the reports for 1867 and 1868.

The most important feature presented by the work of the past year, as compared with its predecessors, has been the organization of systematic operations in the discussion and publication of the results furnished by the self-recording instruments at the observatories. Considerable increase in the computing staff has been requisite to the attainment of this end.

The distribution of duties has been the same as that noticed last year. The whole of the discussions are conducted at the office in London, under the direction of Mr. R. H. Scott; the marine branch being under the special charge of Captain H. Toynbee, the Marine Superintendent.

The general supervision of the self-recording observatories has been hitherto undertaken by Dr. Balfour Stewart, by permission of the Kew Committee of the British Association, in his capacity of Secretary to the Meteorological Committee, and director of the central (Kew) observatory. The Meteorological Committee have to report with sincere regret that Dr. Stewart has found himself unable to continue to devote so much of his time to their service as formerly, and has resigned his office. Such portions of his duties as are connected with the secretaryship, and the relations with the outlying observatories, will devolve upon Mr. Scott. The arrangements which have been made with the Kew Committee respecting the examination of the records from the observatories will be detailed subsequently.

The three heads into which the operations of the Committee are divided are as follows:—

Subdivision of objects of inquiry.

I. *Ocean Meteorology*, comprising the investigation of the meteorological conditions of the entire ocean by means of observations made at sea with instruments lent by the office.

The supply of instruments to the Admiralty is also undertaken by this branch.

II. *Telegraphy and Weather Signals*, comprising the entire system of observation and of telegraphy required for the preparation of the daily weather reports, and for the issue to our own ports and to foreign countries of telegraphic information of ordinary weather and of storms.

III. *Land Meteorology of the British Islands,* comprising the method of inquiry carried on at the seven self-recording observatories established by the Committee. The object of this branch is, firstly, to afford for the entire area of the United Kingdom accurate meteorological information, similar to that published in most European countries under the auspices of their respective governments; and, secondly, to furnish better data for the study of our weather than had previously existed, so as to place the investigations conducted in connexion with Branch II. on a satisfactory scientific basis.

I.—Ocean Meteorology.

Collection of information.

The office continues, as in former years, the practice of lending to captains in the mercantile marine instruments which have been tested at Kew, and are generally, except in short voyages, returned for re-comparison with standards as soon as the ship returns to port. The loan is granted on condition of observations being regularly taken and entered in a meteorological register, which is issued with the instruments, and is sent to the office when they are returned.

The instruments supplied to a ship consist of—

1 Marine barometer (Kew pattern).
6 Thermometers.
1 Thermometer screen.
4 Hydrometers.

And in exceptional cases an azimuth compass is added.

No observations made with instruments which have not been supplied, or authentically verified, by the office are employed in the investigations. Aneroid readings are never used.

Captains of merchant ships are allowed to purchase any of these instruments at cost price, on condition of their keeping a register of observations for the office.

The Committee undertake, in addition to their relations with the mercantile marine, the entire duty of supplying Her Majesty's navy with all the meteorological instruments used in the service. The observations made with these instruments are not necessarily sent to the Meteorological Office, as the keeping of a special meteorological register is entirely voluntary.

Examination of registers.

The direct management of this branch of the office is entrusted to Capt. Toynbee, the Marine Superintendent. The minute examination of the registers as they come in, which is carried out under his directions, has given very satisfactory results. All particulars bearing on the quality of the observations and the mode of taking them, and any answers received from the observers in reply to questions arising out of their logs, are entered on a printed form, and bound up with the register for convenience of reference on future occasions.

The arrears of observations existing in the office are examined on similar principles. The absolute rejection of any registers which bear internal evidence of carelessness, inaccuracy, or "cooking," has been rigorously enforced. In some cases it has

been found that though the instrumental readings were from various causes untrustworthy, the wind and weather observations were of value, and these have accordingly been utilized. The slightest reflection will show the necessity of extreme care in order to avoid spoiling a mass of good observations by the introduction of others of inferior value, whether this be due to the quality of the instruments or to the observer.

The practical effect of the increased attention of the office to the particulars just described has been, as regards the new work, to improve very materially the quality of the registers received during the year.

Discussion of observations.

The efforts of the calculators attached to this branch of the office have been consistently directed to the investigation of the meteorological conditions of the *equatorial* portion of the Atlantic Ocean, as already described in previous reports. The progress effected has been very good, as the Committee have fortunately been able in this, as well as in the other departments, to increase the number of their working staff, so that two additional computers have been engaged. In order to meet the possibility of the calculations being retarded by a deficiency of logs prepared for extraction, Capt. Toynbee has trained two of his most experienced assistants to examine the registers, subject to his control.

Progress of work.

As a general result it may be stated that about half of the materials at present in the office for the district under discussion has been by this time extracted on the plan described in the report for 1867, The very minute examination which the information necessarily undergoes in the process of sifting it into monthly sheets for single degree squares is sufficient to indicate very precise limits for the respective trade wind zones, with the gradual variations in the direction and force of the currents themselves according to latitude and longitude. Equally exact data are afforded for the position of the areas of hot and cold water, which have such an important bearing on the systems of ocean circulation.

Very slight variations in the mean pressure or temperature of the atmosphere are also revealed. It may fairly be augured from the progress already made that the mode of investigation now pursued will be fruitful in results even beyond the expectations of its promoters.

Publication of results.

The question of the future publication of the materials will soon have to be considered. It is obvious that if the mean results, say of the wind, be found to be uniform throughout the hundred sub-squares of a single ten-degree square, no advantage can be derived by proceeding to greater minuteness than a chart or a table for the entire district of 10 deg. of lat. and long. would require.

Issue and return of instruments.

As heretofore, the Committee have not been over-anxious to collect new information, if there was any risk of receiving inaccurate observations. The Marine Superintendent makes a point, it possible, of having a personal interview with the captains of all

ships supplied in London, and he has made several journeys to Liverpool in order to meet the gentlemen, chiefly connected with the great ocean steamship companies who sail from that port. Appendix II. contains a list of the documents received during the year in this department.

When the office was under the management of Admiral FitzRoy, facilities were afforded for captains to receive and return instruments at certain of the ports, such as Liverpool, Bristol, &c. When the Committee took charge of the office, they found that almost all of the so-called "agents" at these ports had been desired by circular to desist from supplying ships. It has now, however, been thought desirable to recommence the practice of employing such agents, and accordingly verified instruments can now be obtained at Liverpool, Hull, Aberdeen, and Dundee.

It is hoped that as the three latter ports are the chief seats of the whaling and sealing trade, information will be obtained from high latitudes in the Atlantic Ocean.

The registers, when received, are divided into four classes: Excellent; Very Good; Good; Ordinary.

Presentations to captains.

The Committee, wishing to present all gentlemen who have kept "excellent" registers with some slight mark of the value they set on the co-operation of careful observers, have determined to give in each case a presentation copy of the Atlantic Pilot Charts, recently published by the Admiralty. The names of the recipients of these charts during the 15 months ending with March 1870,* are—

Captain's Name.	Ship.
Banner, Frederick William	"Lady of the Lake."
Brooks, Samuel	"City of Brooklyn."
Brown, Robert	"Moravian."
Carruthers, Forrest Priest	"Minero."
Fry, Alfred	"Foam."
†Greenwood, William	"Scotia."
Hayes, James	"Ptolemy."
Henderson, Henry	"Hope."
‡Hodding, Samuel White	"Indus."
Hunter, David	"Alpha."
Jones, Arthur Arundel	"Victoria Nyanza."
Lecky, Squire Thornton Stratford	"Halley."
Martyn, John Artis	"Siberia."
Petrie, Peter Conrad	"Patagonia."
Potts, Thomas Crosby	"Tenasserim."
Rawle, Charles	"Star of the North."
Raymond, Charles Tenzer	"British India."
Smith, William Henry	"Hibernian."
§Stephen, John George	"Moravian."
Watson, William	"Palmyra."
Wherland, Frederick	"Galatea."
Wight, Henry Potts	"Gosforth."

* In addition the Committee have presented barometers to two gentlemen who have formerly kept registers for the office, but have now retired from the sea, viz., to Capt. A. D. Wood in 1867, and to Capt. Isaac Gales in 1870. A set of instruments was also presented to Capt. Alfred Fry in 1868.

† Chief Officer. ‡ Second Officer. § Chief Officer.

Completion of former work of the office.

As in former years, the staff has been employed at extra hours in carrying on the unfinished work found by the Committee in the office when they took charge of it. The progress of these operations was noticed last year, and by the close of 1869 the examination of all the information collected by Admiral FitzRoy for the Pacific Ocean and the China Seas was completed. The results have been forwarded to the Hydrographic Office of the Admiralty for embodiment in their series of physical charts now in process of preparation.

With reference to the wind data for the Atlantic, to which allusion was made in the report for 1868, the Committee have decided not to authorise any publication for the present, owing to a general deficiency of information respecting the less frequented parts of the ocean.

Discussion of anemometrical data for Atlantic.

When these arrears of incomplete investigations relating to the strictly marine branch of the office, and enumerated in the Report of the Committee of Inquiry in 1865, had been cleared off, the subject which appeared in the next instance to demand attention was the reduction of anemometrical data, of which a large collection had been amassed.

At the meeting of the British Association at Dublin in 1857, a committee was appointed "to express to the Board of Trade "the wish of the British Association that self-recording anemo- "meters should be established on some of the islands in the "Atlantic Ocean, in aid of the meteorological observations now "being carried on on shipboard under the direction of the "Meteorological Department of the Board of Trade." The result was, that three anemometers on Dr. Robinson's pattern were erected early in 1859; two of them, those at Bermuda and Halifax, at the expense of the Meteorological Department, while the cost of the third, which was placed at Ascension, was mainly defrayed by the Government Grant Committee of the Royal Society.

The instrument at Bermuda has been in almost constant action since that date. That at Halifax was taken down in 1862, and removed to Sandwick Manse, near Stromness, where it remained at work under the superintendence of the Rev. C. Clouston, LL.D., up to June 1869, when it was replaced by a new instrument. The anemometer set up at Ascension was brought home when Lieut. Rokeby left that station in 1865.

The records furnished by these instruments have been only partially discussed. Reductions of the anemograms for 18 months from Bermuda, and for two years from Halifax, were effected in the office, and published respectively in the 8th and 13th numbers of Meteorological Papers. Some portion of the records from Sandwick Manse have been tabulated, and the observations at Ascension were discussed by Lieut. Rokeby.

No systematic treatment of the materials on the principles recommended by Dr. Robinson had ever been undertaken. It

was therefore determined by the Committee to commence the tabulation, reduction, and discussion of this accumulation of important matter. The work is now in progress, but will require a considerable time for its completion. It will be observed that all these special inquiries are totally distinct from the ordinary work of the office, with which no interference is permitted. The cost of the extra work is defrayed from time to time by special grants made by the Committee, who hope gradually in this way to be able to overtake the arrears of work in the office, and to give the results to the public.

Deep-sea thermometers.

In the last report reference was made to the improvement of deep-sea thermometers: the construction of these instruments has been much improved in the course of the year. The Committee appointed by the Royal Society to superintend the dredging expedition conducted by Dr. Carpenter, Mr. J. Gwyn Jeffreys, and Dr. Wyville Thomson, in H.M.S. "Porcupine," have, at the suggestion of Dr. W. A. Miller, adopted a form of thermometer for deep soundings which resembles in principle that formerly employed under Admiral FitzRoy's direction, and described in Meteorological Papers, No. I., p. 55. Dr. Miller's instrument is fully described in the proceedings of the Royal Society, Vol. XVII., p. 482, from which the notice in Part II., p. 25, is extracted. The chief points in which it differs from its predecessors are its being of much smaller size, and therefore more convenient, and the fact that the liquid contained in the interval between the external glass casing and the actual thermometer bulb is spirit instead of mercury.

Great care is taken to prove every instrument thoroughly before it is issued, and they are all tested in a hydraulic press, the force exerted being gradually increased up to $2\frac{1}{2}$ or 3 tons per square inch so as to obviate any risk of the thermometers breaking from sheer pressure on service, and to ascertain the corrections to be applied to their readings for any given depth of water. These thermometers have given great satisfaction, one of them having been used throughout the entire cruise without its accuracy being in the slightest degree impaired.

These deep-sea thermometers are kept for the exclusive use of the Hydrographic Department of the Admiralty.

Instruments: Admiralty account.

In Appendix III. will be found a list of all the instruments supplied to ships in the Royal Navy during the year, with a statement of the entire stock of instruments standing on the books to the account of the Admiralty on the 31st December 1869. This latter statement is prepared from the latest returns furnished by the respective storekeepers at the dockyards, &c.

The work of tracing missing instruments has been systematically carried on during the year, and many questions relating to their disposal have been cleared up.

Instruments: Board of Trade account.

Appendix IV. gives similar information with regard to the Board of Trade instruments.

These tables, when compared with those for last year, show a considerable reduction in the number of instruments belonging to both accounts in use on shore. This amounts in—

	Barometers.	Aneroids.	Thermometers.
Admiralty account -	10	20	36
Board of Trade account -	7	Compasses. 2	30

All these instruments have been recovered for use at sea.

The increase of heavy guns in the navy has brought with it an increasing demand for the so-called "gun" barometers which were made under Admiral FitzRoy's direction, and specially adapted to resist concussion, by surrounding the tube with thick india-rubber tubing. These instruments were formerly only graduated to 0.01 inch, but as the tubes and the rest of the instruments were made with as much care as other barometers, the scales are now being graduated to thousandths of an inch, soas to render the instrument capable of as accurate reading as one of the well-known Kew pattern marine barometers.

Supply of instruments to navigation schools.

Instruments have been supplied by the Committee for educational purposes to the following navigation schools :—

Aberdeen - - - Master, Mr. Jones.
Leith - - - - „ Mr. J. Bolam, jun.
Plymouth - - - - „ Mr. J. Merrifield.
South Shields, the Winterbottom Marine School - „ Rev. Dr. Hooppell.

In addition a set has been allowed, with the special sanction of the Board of Trade, to remain at the Church of Scotland Training School in Edinburgh.

Other instruments not used in the immediate service of the office have been recalled, with the exception of the supply presented to the Scottish Meteorological Society, as noticed in the last report.

II.—Telegraphy and Weather Warnings.

Position of stations.

The only material change which has taken place in respect of the telegraphic system in the course of the year has been an increase in the number of reporting stations both at home and abroad. The list of these points of observation in our islands, with the respective observers' names, will be found in App. V. Their number is now 20 (including London, where the reports are made by the clerks in the Meteorological Office), and they are situated, eight in England, two in Wales, six in Scotland, and four in Ireland. The substitution of St. Ann's Head, at the entrance of Milford Haven, for Weymouth has been a most useful change The development of telegraphic communication

with the extreme north of Scotland has rendered it possible to receive daily reports from Wick and Thurso, and these stations have therefore been established, the former in the month of September, the latter at the beginning of February 1870. This extension of the system has proved to be of much practical benefit. Nairn was formerly the most northerly of the stations, and although it is on the coast, and has a very level country in its immediate neighbourhood, it is so enclosed on the S., W., and N.W. by a mountainous country that the most violent storms from the quarters indicated are rarely felt there. The reports from the two additional stations, which are situated at a considerable distance from any mountains, and possess a very good exposure to the winds, have enabled the office to form a much more correct conception of the conditions of weather prevailing daily on the north coast of Scotland than was previously possible. Some of the other stations, especially Liverpool and Greencastle, are at least as disadvantageously situated as Nairn. As regards Liverpool, the Committee are encouraged, by the readiness with which the authorities connected with the observatory belonging to the Mersey Dock Board have consented to co-operate with them, to cherish the hope that as soon as direct telegraphic communication with Birkenhead has been properly organized they will be able to receive daily reports from that observatory, which is situated in a well-exposed position on Bidston Hill near Birkenhead. The question of improving the reports from Greencastle presents serious difficulties. The N.W. coast of Ireland is so mountainous that it is almost impossible to find an unexceptionable place for wind observations. The same obstacle meets the proposal to obtain reports from the coast of the western highlands of Scotland.*

All the stations were visited by Mr. Scott in the course of the year, and were found to be almost uniformly in very good condition.

In order to test thoroughly the daily weather reports, comparisons have been instituted between the daily observations registered at the telegraphic stations, and the information for the same hours collected from the continuous curves at the observatories. This has only been possible in a few cases where the telegraphic station was reasonably near an observatory; thus Ardrossan was compared with Glasgow, London with Kew; and the results, as regards the correctness of the instrumental readings reported daily, have been very satisfactory.†

* The Committee have resolved, in compliance with a desire which has been very generally expressed, to replace Dover on their list of stations, so as to provide daily information from the S.E. coast of England. Dover with five other stations had been suppressed when the number of stations was reduced at the end of December 1864.

† The transference of the telegraphs over the United Kingdom to the Post Office which took place on the 5th of February will probably occasion some modification in the arrangements previously existing for the supply of the daily reports. However, from the great care which Mr. Scudamore, on behalf of the Post Office, has taken to ensure the speedy and accurate transmission of their telegrams, the Committee have every reason to expect that the change will be in every way beneficial to the cause of meteorological telegraphy.

A considerable change has taken place in respect of the interchange of weather reports with foreign countries, owing to the establishment of direct communication with Norway and Holland. The Meteorological Office now receives from the Observatoire Impérial in Paris reports from Paris (twice daily), as well as once a day from Strasbourg, Lyons, Brussels, and Corunna. The Ministère de la Marine forwards reports from Cape Grisnez, St. Mathieu (Brest), Grognon (L'Orient), Ile d'Aix (Rochefort) (twice daily), Biarritz, and Cape Sicié (Toulon).* In return, the Meteorological Office sends to the Observatoire reports from Nairn, Scarborough, Yarmouth, Penzance, Valencia, and Greencastle, (from the two last twice daily), and to the Ministère de la Marine a daily résumé of the weather as reported from the stations in these islands and in Norway. Telegraphy with the continent.

The daily report from Helder, formerly received viâ Paris, now comes direct to London from Holland.

It is, however, with regard to Norway that the system has undergone the most extensive modifications. In the course of last summer a direct cable was laid from Peterhead to Egersund on the coast of Norway, and in the month of October Professor Mohn, director of the Royal Meteorological Institute of Norway at Christiania, submitted to the Committee a proposal for a daily interchange of observations, which was carried into effect in the first days of December. The arrangements are, that the Meteorological Office receives from Norway daily reports from Christiansund, Skudesnaes (twice a day), and from the island of Oxö near Christiansand, and sends in return information from Nairn (twice a day), Yarmouth, and Valencia.

It will be seen from the foregoing that the office receives 35 reports every morning and 9 every afternoon. The stations are situated along the entire coast of the continent from Christiansund in lat. 63° N. to Corunna, with the exception of the coast of North Germany, and of Denmark. It is, however, hoped that ere long intelligence may be regularly received from these districts also. Extent of the system.

Experience has shown that in most instances the office is able to transmit to neighbouring countries information of much greater value than any which it can receive from the continent, owing to the fact that most of our storms come to us from the Atlantic.

The service with Heart's Content has been maintained during the year owing to the continued liberality of the directors of the Anglo-American Telegraph Company. The messages are transmitted *free of cost* over the ocean wires to Valencia, so that the cost to the Committee of this distant station is precisely the same as if it were on the coast of Ireland. Heart's Content.

* These latter stations have all been placed (March 1870) in connexion with the observatory of Montsouris, established in the course of the year 1869, and managed by a meteorological commission of which M. C. Ste. Claire Deville is president.

Preparation of daily weather report.

The daily observations, with the exception of those at Heart's Content, are taken at 8 a.m., Greenwich time, and most of the telegrams arrive in London at about 10 o'clock. An hour is required for their reduction, discussion, and the preparation of the daily weather report, copies of which are at once supplied for the afternoon issue of several of the London papers. A brief telegraphic résumé of the weather is despatched to the Marine Ministry in Paris, and if necessary, telegraphic intelligence of storms or of atmospherical disturbance is sent to our own coasts and to foreign countries. Later in the day the foreign telegrams, and subsequently the afternoon reports, come in. Copies of the complete report are then sent by post to the newspapers for next day's morning issue, and to certain seaports which have applied for it on the terms named in the circular issued by the Committee in March 1867. (See Report, 1867, p. 17.) In addition, copies are supplied to a few meteorologists at a cost slightly exceeding the expense of postage. The list of recipients is contained in App. VI.

Telegraphic weather intelligence.

The intelligence of storms which is sent out from the office is of different characters, according to the requirements of the place which receives it. In App. VII. will be found a list of the stations which are furnished with drums, in accordance with circular 278 of the Board of Trade, issued in December 1867 (App. VIII.). These stations are 106 in number, and are situated, 55 in England, 13 in Wales, 26 in Scotland, 10 in Ireland, and 2 in Jersey. Lamps for night use are supplied to a few of the stations. All the stations have been established and are carried on on the terms laid down in the circular, excepting the dockyards, which are of course under Admiralty management. The messages sent consist of an order to hoist the drum, accompanied by a brief explanation of the reasons why it is to be hoisted. The message is posted up as soon as it is received, for the information of the public. It continues in force for 36 hours, *and no longer*, from the time of its receipt, unless modified by a subsequent telegram, which is frequently sent, either when the danger is known to have passed over, or when there are signs of the approach of another storm.

The experimental semaphores which have been on trial at Blackwall, Liverpool, and Tynemouth, have been taken down, as it was found that the drum signal was sufficient for the requirements of the respective ports, as far as they could be ascertained.

Telegraphy to Liverpool.

In addition to the foregoing, a special telegram is sent to the Underwriters' Association of Liverpool, whenever the difference between any two barometrical readings taken that morning in these islands or on the adjacent French coast, exceeds half an inch. The message consists of reports of the atmospherical pressure and the wind at three or four stations. By this means intelligence of the general conditions of weather that morning reaches the underwriters' rooms daily before 1 o'clock, as long as the atmosphere continues in a disturbed condition. Half the

expense of transmission of these telegrams is borne by the Association.

The intelligence of storms sent to foreign countries differs in each special case. To France* the same messages are sent as to our own south coast and to Jersey. A telegram is despatched to Utrecht and Hamburg, whenever the difference of readings between any two of our stations exceeds 0·8 in., and the authorities at Hamburg hoist drums at that port and at Cuxhaven whenever the intelligence received justifies the step in their opinion. The practical value of this information to the trade of Hamburg has been even more striking in the course of last year than it was before. In the Second Annual Report of the Norddeutsche Seewarte, Herr von Freeden says,— Warnings to the continent.

" Let us now turn to the English storm warnings, for which " we are indebted to the courtesy of the Meteorological Office in " London.

" We have received altogether 48 telegrams during the year " 1869. Of these 18 were simply cautionary, as to the more or " less threatening state of affairs, and out of these, four expressly " stated, ' Do not hoist yet.' "

" The 30 remaining telegrams may be considered as real storm " warnings, but the direct order to hoist the ' drum ' signal was " only given in 22 cases.

" Then the storm was experienced (a storm being taken as at " least 30 miles per hour)—

" Same evening, or next day	13	times
" Previous day	4	„
" (In three of these cases a Sunday had inter- " vened and no telegram could be sent.)		
" Squally weather	6	„
" Fine „	7	„
" Total	30	„

" In two cases we received no telegram, but in one instance, " as is clearly stated, it was owing to an interruption on the " wires."

The issue of warnings is conducted strictly according to the method indicated in the last report, and it is gradually assuming a more scientific character, according as principles which seem Weather study and issue of warning.

* Since the commencement of the present year 1870 the Committee have been requested by the Ministère de la Marine to issue warnings for the *entire* north and west coast of France. They have declined to undertake so great a charge, but have consented, whenever it seems requisite, to send telegrams to Paris for transmission to the ports situated on the coast from Dunkerque to Nantes. At these stations the drum is hoisted, and it has precisely the same signification as in England.

The Norwegian government are also adopting the drum, and it is hoisted at Oxo near Christiansand.

to regulate the changes and sequence of our weather appear to be revealing themselves.

The Committee in the increase of their computing staff, to which allusion has already been made, have added two to the number engaged in this department, and the results have been very satisfactory. The daily weather chart is drawn regularly, and in addition an abstract of the conditions of weather for each day is entered in a book and carefully analysed. The books are in monthly volumes and each of them is copiously indexed, so as to afford facilities for the recognition of recurring types of weather.

Exchange of daily bulletins.

In order to supplement the telegraphic reports the office keeps itself in constant correspondence with the principal meteorological organizations of the continent, and exchanges the lithographed daily weather reports for their respective bulletins. The institutions with which such an interchange is maintained are given in the note.*

Increase of number of stations.

Each case of issue of a warning message is specially investigated with respect to the weather recorded at the self-recording observatories and the telegraph stations. As these points of observation are rather sparsely scattered around our coasts measures are being taken by the Committee to increase the number of their automatic instruments by erecting anemometers at Holyhead and Yarmouth (see p. 22), and to invite co-operation from private observers. In the last-named direction they have received great encouragement, as not only have several gentlemen of great zeal and acknowledged accuracy in observing agreed to help them by furnishing reports of wind and weather, but in some cases even daily anemographical records have been promised them.† This plan was only commenced at the close of the year, so that it would be premature to speak of it at more length.

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* List of Daily Meteorological Bulletins received at the Meteorological Office.

Place.	Whence issued.
Christiania - - -	Norske Meteorologiske Institut.
Hamburg - -	Nord-deutsche Seewarte.
Lisbon - - -	Observatorio do Infante D. Luiz.
Paris - - -	Observatoire Impérial.
Paris - - -	Observatoire Météorologique Central de Montsouris.
St. Petersburg - -	Observatoire Central Physique de Russie.
Utrecht - - -	Koninklijk Nederlandsch Meteorologisch Instituut.
Vienna - - -	K. K. Central-Anstalt für Meteorologie und Erdmagnetismus.

† Records of this nature have been received from His Grace the Duke of Northumberland, Alnwick Castle; R. H. Barnes, Esq., Bayswater; Rev. F. W. Stow, Whitby.

The principle that the direction and force of the wind on any day depend on the amount of difference in barometrical readings over a given area, or on the "gradient," as explained in the last report, has proved itself to be thoroughly trustworthy. The problem in weather study to which attention must now be directed is the discovery of the probable path of each storm taken as a whole, and of its rate of progress across the country. This is a question most difficult of solution, but great light is and will be thrown upon it by the study of the continuous records furnished by the observatories. At this point, therefore, the labours of the two branches of telegraphy and land meteorology coalesce. Under the latter head at p. 21 will be found an account of the proposed Quarterly Weather Report. This current chronicle taken with the facsimile representations of the graphical instrumental records, will afford materials for subsequent weather study incomparably more copious and accurate than anything which has been hitherto available either in this country or elsewhere.

Non-official publications.

In addition to the work which has just been described, inquiries of a more theoretical character have been carried out during the year. The Committee, considering that speculative deductions of the nature indicated should rest on the authority of the respective investigators, have sanctioned the commencement of a series of non-official papers, consisting of reports addressed to them on the several questions which have been the subjects of the inquiries. The authors of these reports are alone responsible for their contents. The first paper of this class was Mr. Scott's "Report on the Connexion between Strong Winds and Barometrical Differences," noticed in the last report. It has been followed by two others from the pen of Capt. H. Toynbee, of which the first is "On the Meteorology of the North Atlantic between the parallels of 40° and 50° N.," the other "On the Use of Isobaric Curves." The former of these is an examination of the observations taken on board the Atlantic mail steamers on their outward and homeward voyages. Four passages each way, made by one observer, Capt. John A. Martyn, have been taken, and the diagrams of the observations exhibit this remarkable peculiarity, that when the ship is *outward* bound, the barometrical and thermometrical curves are marked by frequent oscillations, and the wind usually shifts from S. to W. and back again several times during the passage; while when she is *homeward* bound the instruments and the wind are much more steady. Capt. Toynbee offers as an explanation of these facts the idea that the atmosphere over the Atlantic is in a state of constant motion in a direction which is generally easterly, and at a rate of progress slightly less than that of a full-powered steamer, and that it is disposed in a series of successive eddies or waves. The ship, when outward bound, meets and passes through several of these systems, while on her homeward passage she may run with one for days together, and so experience little

Meteorology of the North Atlantic.

change either in wind or weather. It is almost unnecessary to say that should these views be confirmed by more ample experience, the generalization is calculated to be a most useful one, as well to scientific meteorology as to practical navigation.

The use of isobaric curves.

Captain Toynbee's Second Report is on the use of isobaric curves, in affording a clue to the present and probable conditions of weather. He has investigated the weather charts for several days at various seasons, drawing on every chart two lines, one indicating the line of greatest actual barometrical gradient as shown by the observations, the other showing the greatest change in the distribution of pressure, and joining the station where the barometer has risen most rapidly during the preceding 24 hours with that where the fall has been greatest. The normal to the first of these lines shows, on the principle of Buys Ballot's law, the wind which will prevail during the day, while the normal to the second indicates the probable change in direction and force which will supervene in that wind. It is evident that if these two lines run in the same direction the wind will increase, and *vice versâ*, it will die down if their directions be opposed to each other.

These results are very useful, and they are employed by the office in the issue of cautionary telegraphic warnings.

Another practical principle which is brought under the notice of seamen in this report is, that the tack on which a ship is sailing influences the rate of rise or fall of the barometer on board.

Fishery barometers.

The Committee have continued the practice of lending barometers to small ports and fishing stations, where the inhabitants are too poor to be able to provide such an instrument for themselves. The barometers usually supplied are the so-called "Fishery Barometers," which are of large size, so as to be easily consulted, and yet of considerable accuracy. This form of instrument was originally devised at Admiral FitzRoy's suggestion. 14 of these barometers were issued on loan during the year, and there are now 111 stations round our coasts supplied with barometers for public use.* The stations are situated, 48 in England, 2 in Wales, 39 in Scotland, and 22 in Ireland, see App. IX. The Board of Fisheries in Edinburgh has kindly undertaken the local supervision of these instruments in Scotland, and no fresh grants to Scotch stations are made without consultation with that office.

III.—Land Meteorology of the British Islands.

Stations.

It is in respect of this branch of their system that the operations of the Committee have undergone the most active development since the date of the last report. The stations fitted with self-recording instruments are seven in number, and they were

* The Royal National Lifeboat Institution has also erected several of these instruments on the coast.

all inspected by Dr. Stewart in the course of the year. The following particulars about them may be of interest:—

Observatory.	Superintended by	Latitude N.	Longitude W.	Height of Barograph Cistern above Sea Level.
		° ′	° ′	Ft.
Aberdeen	D. Thomson, M.A., Professor of Natural Philosophy.	57 8	2 5	88·5
Glasgow	R. Grant, LL.D., F.R.S., Professor of Practical Astronomy.	55 51	4 16	184
Armagh	Rev. T. Romney Robinson, D.D., F.R.S., Astronomer.	54 22	6 39	207·3
Valencia	Rev. Thos. Kerr	51 54	10 25	23·0
Stonyhurst	Council of Stonyhurst College.	53 50	2 25	360·7
Kew	Kew Committee of British Association.	51 29	0 18	34
Falmouth	Royal Cornwall Polytechnic Society.	50 9	5 4	210·8

The records from all the observatories are examined at Kew, in accordance with the regulations contained in Part II. of the report for 1868, prior to being sent to the office in London for discussion.

New arrangements with Kew.

Dr. Balfour Stewart having resigned his appointment as secretary, the arrangement heretofore existing between the Meteorological Office and the Kew Committee has (with the concurrence of the Council of the British Association) been settled *pro tem.*, on the following conditions:—

The records from the outlying observatories, together with those of the central (Kew), are, as heretofore, to be examined at Kew, in consideration of an annual sum (400*l.*) being allowed for the performance of that duty. This payment is irrespective of the annual grant (250*l.*) made to Kew as one of the seven self-recording observatories, and is an increase of 200*l.* on the amount originally paid to the Kew Committee for the same work, while the special salary to Dr. Stewart, as secretary, is no longer payable.

The direct supervision of the observatories is, from the commencement of the present financial year, to be transferred to the Meteorological Office.

It is understood that these arrangements shall continue in force as long as the present position of Kew Observatory with the British Association remains unchanged.

The Meteorological Committee regret that they have not been able to retain the benefit of Dr. Stewart's continued assistance to the same extent as in former years. They desire to record and acknowledge that they fully recognise the practical experience and the eminent scientific attainments of that gentleman, as evinced by him during their arduous task of arranging and

finally establishing a new and delicate system of meteorological observations.

Utilization of results.

The Committee, finding that at the end of 1868 the difficulties of first starting the system had been overcome, and that the various observatories were sending in their records with great regularity and comparative freedom from defects, resolved that their systematic publication of results should commence with the year 1869. They have therefore during the year increased their computing staff, so as to keep pace with the progress of the instruments. The continuous records will be capable of being utilized for entirely distinct purposes. On the one hand, they will undoubtedly furnish mean numerical results of accuracy surpassing anything which could be yielded by eye observations; and on the other hand, they will exhibit the changes in atmospherical conditions which pass over our islands with absolute fidelity, and will thereby throw a totally new light on the study of weather.

The appendix to the last report contained specimens of tables of average results which were in process of calculation. These have been completed for the year 1869, and are in type: they are two in number.

Description of Tables.

Table I. gives the monthly means for the barometer and dry thermometer, with the extreme readings, maximum and minimum, for each month, and in addition the monthly means of vapour pressure and of dry air.

Table II. gives the five-day means of the barometer and the dry and wet thermometers.

Periodic corrections.

These tables will at the end of five years be supplemented by a third, exhibiting the hourly periodic corrections of temperature, so as to afford data for the determination of daily range in all parts of the country.

Anemometrical reductions.

The calculation of numerical average results for the wind presents very serious difficulties, owing to the extremely changeable nature of our climate. It has finally been decided at the instance of Dr. Robinson, whose authority on the subject of anemometry is unquestioned, to conduct the discussion with a view to occasional publication at definite intervals, inasmuch as it appears that five years is the shortest period from which results of any practical value could be expected.

Publication of curves.

Lastly must be noticed the method adopted by the Committee for presenting their continuous records to the public in a form available for weather study. In the last report the issue of lithographed curves, at full size, obtained by tracing from the originals and the subsequent use of the anastatic process, was mentioned. It became evident that any reproduction of the records at natural size would be far too cumbrous and costly. A little consideration showed that the time scale would bear much greater reduction than that of the ordinates for the actual instrumental readings. The problem which then presented itself was how to reproduce the curves by instrumental means with entire truthfulness, at the same time varying their scale in the manner

indicated. This difficulty has been met in the most satisfactory manner by one of the Committee, Mr. Francis Galton, who has invented a pantagraph which effects all that is required of it in this direction with the utmost accuracy, and is at the same time very easy of manipulation. A description of the instrument will be found in Part II. at p. 32.

The zinc templates obtained from it exhibit the curves on the same vertical scale as the original, but with the horizontal scale reduced to one third. These templates are then capable of any further reduction which may be desired in the ordinary pantagraph. The amount of reduction which has been adopted is one half, so that the final curves published are on one half the vertical and one sixth the horizontal scale of the original curves obtained from the instruments themselves.

It is found that when the records are reduced in this proportion the entire information from the barometers and thermometers at the seven observatories for five days can be brought within the space of a 4to. page. The data for wind and rain for the same interval form a corresponding plate.

It is obviously of paramount importance that the most extreme mechanical precision should be provided, so that the records shall be capable of exact measurement at any epoch of time.

The ordinary pantagraph is not sufficiently accurate for such very delicate work. The Committee have therefore ordered one of the pantagraphs invented by F. Wagner, junior, of Berlin. The construction of these instruments is admittedly superior to that of any others in use. This instrument will be ready about the month of June.

In order to avoid additional delay it has been determined to reproduce the records for the first three months of 1869 by lithography, and the work has been entrusted to Malby & Co. Specimens of the lithographed plates produced by the method above described are given (Plates I. and II.) representing the weather from Jan. 26–30, 1869.

The curves will, however, require some explanation, and with the view of affording this the Committee have directed that a continuous chronicle of the weather should be prepared. This has been commenced, and it is based on the data furnished by the observatories, combined with that provided by the telegraphic weather reports, ships' logs, and other sources of accurate information, such as observations made by independent British observers of known accuracy, and by the several bulletins, &c., published abroad (p. 16).

Quarterly Weather Report.

This chronicle will be illustrated by small sketch charts showing the conditions of barometrical pressure and of wind whenever such information seems requisite. This weather journal with the plates of curves will appear at intervals of three months, and will be entitled the Quarterly Weather Report of the Meteorological Office. With this publication the mean numerical results will be from time to time issued.

Additional stations.

On commencing the systematic study of weather it at once became evident that additional information was required from British stations in order to afford an accurate insight into the changes of our weather. The most obvious particular in which an increase of points of observation was required was the wind. A cursory inspection of the simultaneous anemometrical records from the existing observatories was sufficient to show that their indications were much influenced by local conditions, the inland stations showing much less wind than those exposed to the sea. In order to obviate partially the inconvenience arising from this cause three new anemometers have been erected during the year at exposed points on our coasts. One was erected in June at Sandwick Manse, Orkney, in order to replace the instrument which has been in action there for the last seven years under the superintendence of Dr. Clouston. The second has been placed at Holyhead, and the third at Yarmouth. At the former station the anemometer is placed on the top of the old lighthouse by permission of the Board of Trade. The Committee have also to acknowledge the valuable assistance which they have received in the matter from Rear-Admiral Schomberg, the harbour master. At Yarmouth the instrument is set up on the Sailors' Home with the sanction of the committee of that institution.

The other measures which are being adopted with the view of inviting volunteer co-operation in observations have already been detailed (p. 16).

Self-recording rain gauges.

An important development of the automatic system of observation introduced by the Committee will take place in the course of the year 1870, as they have determined to erect self-recording rain gauges at all the observatories. The form of instrument adopted is that invented by Mr. Beckley, a description of which will be found in Part II. (p. 36).

Expenditure.

Change of office.

On closing their accounts for the financial year 1868–9, the Committee fortunately found themselves with a balance to their credit, so that they were in a position to meet the serious outlay entailed on them by the necessity of fitting up and furnishing a new office. The total expenditure on this head has exceeded 750*l.*

It was at the end of February that notice was received from the Board of Works that they desired to resume possession of the rooms at No. 1, Parliament Street, which had been in the occupation of the Meteorological Office since its establishment. The Committee succeeded in finding suitable accommodation in the house No. 116, Victoria Street, and the office was removed to its present location on the 31st of May.

The addition to its annual expenditure entailed on the office by this change has been very considerable, exceeding 370*l.*, for rent, &c., which is further increased by charges for firing, light, cleaning, and the wages of an office keeper.

Another source of augmented outlay has been the increase in the computing staff, in order to cope with the arrears of observations already existing in the office and the materials constantly coming in. The necessity of action in this direction was most emphatically urged by the Committee of Inquiry in their report, and the Meteorological Committee have kept constantly before them the desirability of carrying it out. Increase of staff.

No fewer than nine new computers have been engaged at weekly wages. Of these, two are attached to the branch of ocean meteorology, two to that of telegraphy, four to that of land meteorology of the British islands, while the ninth gives assistance in the clerical work of the accounts and correspondence. The payment of these gentlemen entails a yearly charge exceeding 500*l.*

The Committee are glad to be able to say that notwithstanding this great permanent increase of their expenditure they have been able to confine it within the limits of their annual grant. They find themselves at present with a balance of 1,486*l.* at their bankers, but of this sum almost the whole has been anticipated by various contracts, &c. The postal telegraph accounts for February and March will not fall much short of 300*l.*; 230*l.* is required to defray outstanding accounts for instruments for the mercantile marine; the pantagraphs will cost 280*l.*; and the rain gauges 210*l.* On the whole the Committee will commence the year 1869-70 with a small available balance in hand, and they hope, by careful management, to succeed in discharging the duties they have undertaken without requiring a present increase in the grant allotted to them by Parliament. In Appendix X. will be found a list of the present staff in the employment of the Committee, and of their several occupations. Present position.

App. XI. gives a list of the additions to the library made during the year. These books have, for the most part, been received in exchange for the publications of the office.

Summary.

The progress made in the office during the year in the various directions of its inquiries may be thus summed up:—

I. *Ocean Meteorology.*—The investigation of the meteorology of the equatorial portion of the Atlantic Ocean has made satisfactory progress, as the number of assistants engaged on it has been increased.

The unfinished discussions relating to the Pacific Ocean, found in the office, have been completed, and the results sent to the Admiralty for embodiment in their series of physical charts.

The work now in hands at extra hours is the reduction of anemometrical data.

The issue of instruments on loan has been continued, and the character of the registers received shows a very sensible general improvement. The Committee have presented copies of the

Atlantic pilot charts to certain captains, who have kept "excellent" logs. Their names will be found at page 8.

The cost of this department has been 1,639*l.* 1*s.* 6*d.*

II. *Telegraphy and Weather Warnings.*—The home-reporting stations have been increased by two, Wick and Thurso. No material change has been made in the system of telegraphy with France, but a regular interchange of reports has been instituted with Norway, which has been productive of much mutual benefit.

The drum signal is hoisted, on orders from the Meteorological Office, at 106 British stations, as well as along the coast of France from Dunkerque to Nantes.

The study of weather is conducted on systematic principles; every warning message issued is carefully compared with the subsequent weather experienced as recorded at the self-recording observatories.

Fourteen new fishery barometers were supplied during the year, making the total number round our coasts 111.

The cost of these operations has been 2,639*l.* 0*s.* 1*d.*

III. *Land Meteorology of the British Islands.*—The regular discussion of the observatory records has been undertaken, and the mean results for the year 1869 are in type. Measures have been adopted to reproduce the curves yielded by the instruments in facsimile, so as to present to the public the entire information obtained by the system.

It has been determined to publish a quarterly weather report which shall contain the continuous plates, with a current chronicle of the weather explanatory of them. The facts on which this chronicle is compiled are obtained partly from Branch III. and partly from Branch II. Any information derivable from ships' registers is also utilized.

In order to increase the amount of information received at the office, anemometers have been erected at various points on our coasts, and invitations have been issued to independent observers of known accuracy to assist the office in its work. These proposals were only sent out at the close of the year, but the Committee have already received great encouragement to hope for good results from the plan.

The cost of the department of land meteorology has been 3,174*l.* 5*s.* 2*d.*

Office.—The expenses of management, in salaries and wages, have been 1,562*l.* 1*s.* 3*d.* This sum will be reduced during the ensuing year, owing to Dr. Stewart's resignation of the secretaryship. The other charges incident on the office for rent, furniture, &c. &c., have amounted to 1,404*l.* 3*s.* 7*d.*

Arrangements have been made with the Kew Committee of the British Association for the examination of the curves and tabulations at that observatory.

The general supervision of the observatories has been transferred to Mr. Scott.

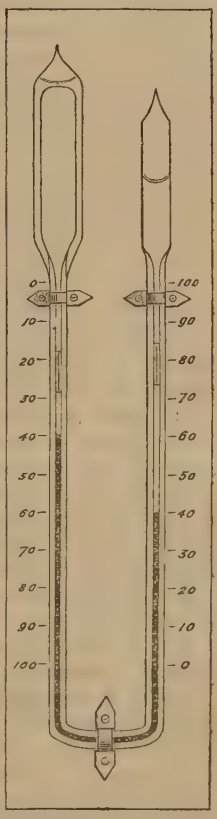
PART II.

Description of New Instruments, &c., adopted by the Meteorological Committee.

No. 1.—Note upon a Self-Registering Thermometer adapted to Deep-Sea Soundings, by W. A. Miller, M.D., Treasurer and V.P.R.S, extracted from Proceedings of Royal Society vol. xvii., p. 482.

It is well known that self-registering thermometers of the ordinary construction are liable to error when sunk to considerable depths in water, in consequence of the diminution produced for the time in the capacity of the bulb under the increased pressure to which it is subjected. The index, from this cause, is carried forward beyond the point due to the effect of mere temperature, and the records furnished by the instrument rise too high.*

A simple expedient occurred to me as being likely to remove the difficulty; and as upon trial it was found to be perfectly successful, I have thought that a notice of the plan pursued might not be unacceptable to future observers.



The form of self-registering thermometer which it was decided to employ is one constructed upon Six's plan. Much care is requisite in adjusting the strength of index-spring, and the size of the pin, so as to allow it to move with sufficient freedom when pressed by the mercury, without running any risk of displacement in the ordinary use of the instrument while raising or lowering it into the water. Several of these thermometers have been prepared for the purpose with unusual care by Mr. Casella, who has determined the conditions of strength in the spring and diameter of tube most favourable to accuracy. He has also himself had an hydraulic press constructed expressly with the view of testing these instruments. By means of this press the experiments hereafter to be described were made.

The expedient adopted for protecting the thermometers from the effects of pressure consisted simply in enclosing the bulb of such a Six's thermometer in a second or outer glass tube, which was fused upon the

* In sea water of sp. gr. 1·027, the pressure in descending increases at the rate of 280 lbs. upon the square inch for every 100 fathoms, or exactly one ton for every 800 fathoms.

stem of the instrument in the manner shown in the accompanying figure. This outer tube was nearly filled with alcohol, leaving a little space to allow of variation in bulk due to expansion. The spirit was heated to displace part of the air by means of its vapour, and the outer tube and its contents were sealed hermetically.*

In this way variations in external pressure are prevented from affecting the bulb of the thermometer within, whilst changes of temperature in the surrounding medium are speedily transmitted through the thin stratum of interposed alcohol. The thermometer is protected from external injury by enclosing it in a suitably constructed copper case, open at top and bottom, for the free passage of the water.

In order to test the efficacy of this plan, the instruments to be tried were enclosed in a strong wrought-iron cylinder filled with water, and submitted to hydraulic pressure, which could be raised gradually till it reached three tons upon the square inch, and the amount of pressure could be read as the experiment proceeded upon a gauge attached to the apparatus.

Some preliminary trials made upon the 5th of May showed that the press would work satisfactorily, and that the form of thermometer proposed would answer the purpose.

These preliminary trials showed that, even in the thermometers with protected bulbs, a forward movement of the index of from 0·5 to 1° F. occurred during each experiment. This, however, I believed was caused, not by any compression of the bulb, but by a real rise of temperature, due to the heat developed by the compression of the water in the cavity of the press.

This surmise was shown to be correct by some additional experiments made last week to determine the point. On this occasion the following thermometers were employed:—

No. 9645. A mercurial maximum thermometer, on Professor Phillips's plan, enclosed in a strong outer tube containing a little spirit of wine, and hermetically sealed.

No. 2. A Six's thermometer, with the bulb *protected*, as proposed by myself, with an outer tube.

No. 5. A Six's thermometer, with a long recurved cylindrical bulb, also *protected* in a similar manner.

No. 1. Six's thermometer, with cylindrical bulb of extra thickness, *not protected*.

No. 3. Six's thermometer, with spherical bulb, extra thick glass, *not protected*.

No. 6. Admiralty instrument, Six's thermometer, ebonite scale, bulb *not protected*.

No. 9651. An ordinary Phillips's maximum mercurial thermometer, spherical bulb, *not protected*.

The hydraulic press was exposed in an open yard, and had been filled with water several hours before. A maximum thermometer,

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* See also p. 10.

introduced into a wrought-iron tube filled with water, open at one end to the outer air, closed at the other, where it passed into the water contained in the press, registered 46°·7 at the commencement, and 47° at the end of the experiment. Temperature of the external air 49° F.

In commencing the experiment, the seven thermometers under trial were introduced into the water in the cavity of the press, and after a lapse of 10 minutes the indices of each were set, carefully read, and each instrument was immediately replaced in the press, which was then closed, and by working the pump the pressure was gradually raised to $2\frac{1}{2}$ tons upon the inch. It was maintained at this point for 40 minutes, in order to allow time for the slight elevation of temperature caused by the compression of the water to equalize itself with that of the body of the apparatus. At the end of the 40 minutes the pressure was rapidly relaxed. A corresponding depression of temperature was thus occasioned, the press was opened immediately, and the position of the indices of each thermometer was again read carefully; and the water was found to be at a temperature sensibly lower than before the experiment began, by about 0°·6 F. By this means it was proved that the forward movement of the index in the protected thermometers, amounting to 0°·9, was really due to temperature, and not to any temporary change in the capacity of the bulb produced by pressure.

This will be rendered evident by an examination of the subjoined table of observed temperatures :—

First Series : Pressure $2\frac{1}{2}$ tons per square inch.

Number of Thermometer.	Minimum Index.		Maximum Index.		Maximum Mercury.
	Before.	After.	Before.	After.	After.
Protected - 9645	—	—	47·0	47·7	
„ - 2	47·0	46·5	46·7	47·6	46·5
„ - 5	47·0	46·3	46·5	47·6	46·0
Mean - -	—	—	—	47·6	
Unprotected - 1	46·7	46·4	46·5	54·0	46
„ - 3	47·0	46·5	46·5	56·5	46
„ - 56	47·0	46·0	47·0	55·5	46
„ - 9651	—	—	46·7	118·5	
Mean - -	46·9	46·3	46·7	—	46·1
Temperature of external air -			- 49		49
Temperature of thermometer in press -			46·7		47

In the Phillips's maximum thermometer, with unprotected spherical bulb, No. 9651, the bulb had experienced so great a degree of compression as to drive the index almost to the top of the tube. In all the other unprotected instruments, which had been made with bulbs of unusual thickness, the index had been driven beyond its proper position from 6°·4 to 8°·9 F.; and it is obvious that the amount of this error must vary in each instrument with the varying thickness of the bulb and its power of resisting compression.

Notwithstanding the great pressure to which these instruments had been subjected, all of them, without exception, recovered their original scale-readings as soon as the pressure was removed.

It will be seen that the mean rise of temperature indicated by the three protected instruments was 0°·9 F., whilst the mean depression registered on removing the pressure amounted upon all the instruments which admitted of its measurement to 0°·6, an agreement as close as was to be expected from the conditions of the experiment.

A second set of experiments was made upon the same set of instruments, with the exception of 9651; but the pressure was now raised to 3 tons upon the inch; this was maintained for 10 minutes. When it had risen to $2\frac{3}{4}$ tons a slight report was heard in the press, indicating the fracture of one of the thermometers. On examining the contents of the press afterwards it was found that No. 2 was broken, the others were uninjured. The broken thermometer was the earliest constructed upon the plan now proposed, and it was consequently not quite so well finished as subsequent practice has secured for those of later construction. The results of the trial under the higher pressures showed an increase in the amount of compression experienced by the unprotected instruments, rising in one instance to as much as 11°·5 F. With the protected instruments the rise did not exceed 1°·5, due, as before, to the heat evolved from the water by its compression.

A pressure of 3 tons, it may be observed, would be equal to that of 448 atmospheres of 15 lb. upon the square inch; and if it be assumed that the diminution in bulk of water under compression continues uniformly at the rate of 47 millionths of its bulk for each additional atmosphere, the reduction in bulk of water under a pressure of 3 tons upon the square inch will amount to about $\frac{1}{47}$ of its original volume. This probably is too high an estimate, as the rate of diminution would most likely decrease as the pressure increases.

APPENDIX.

Since the date of the foregoing paper some additional trials of deep-sea thermometers have been made, the results of which may be of interest.

The first set of experiments were made in Capt. Toynbee's presence,

and the instruments tested were 12 of Dr. Miller's thermometers. One unprotected deep-sea thermometer (Pastorelli, 73), and one protected with a jacket of mercury (see p. 10) on the plan approved of by Admiral FitzRoy (Negretti, 19); both the latter instruments belong to the office.

The instrument used as "standard" throughout the experiments was the same thermometer as that described in Dr. Miller's paper.

First trial; pressure $2\frac{1}{2}$ tons per square inch.

28th September 1869.

Number of Thermometer.		Minimum Index.		Maximum Index.		Mercury.
		Before.	After.	Before.	After.	After.
Standard - - -		- -	- -	60·5	61·1	
Protected by Spirit jacket.	1 -	60·5	60·5	60·5	62·0	Not recorded.
	2 -	60·3	60·1	60·4	61·8	
	3 -	60·3	60·2	60·3	62·0	
	4 -	60·2	60·1	60·3	61·4	
	5 -	60·2	60·2	60·5	61·8	
	6 -	60·2	60·1	60·3	61·5	

Result:—The minimum indices in no case affected by pressure; the standard rose 0°·6, and the maximum indices rose on an average 1°·37.

Second trial; pressure $2\frac{1}{2}$ tons.

Standard - - -	- -	- -	61·0	61·3	61·0
Protected by spirit jacket. 7 -	60·8	60·5	60·8	62·0	60·9
8 -	60·7	60·5	60·8	62·0	60·8
9 -	60·5	60·3	60·5	61·5	60·5
10 -	60·4	60·5	60·8	62·0	60·6
11 -	60·8	60·8	61·0	61·8	60·8
12 -	60·7	60·5	60·8	62·0	60·6

Result:—Little or no effect upon minimum indices, standard rose 0°·3, maximum indices rose 1°·10.

Third trial; pressure $2\frac{1}{2}$ tons.

Number of Thermometer.	Minimum Index.		Maximum Index.		Mercury.
	Before.	After.	Before.	After.	After.
Standard			61·2	61·4	—
Pastorelli 73	61·0	61·0	60·8	71·5	61·0

Result:—This thermometer was an ordinary Six's, without protection; the minimum was not moved; the maximum rose 10°·7; the standard rose 0°·2.

Fourth trial; pressure 1 ton.

Standard			61·2	61·5	—
Negretti, 19	61·0	61·0	61·0	61·5	61·3

Fifth trial; pressure 2 tons.

Standard			61·2	61·6	61·3
Negretti, 19	61·0	61·3	61·0	62·6	61·3

Sixth trial; pressure $2\frac{1}{2}$ tons.

Standard			61·5	61·8	61·5
Negretti, 19	61·2	61·0	61·2	63·0	9·19

One ton had no sensible effect on this instrument; two tons raised the maximum index 1°·6; and $2\frac{1}{2}$ tons raised it 1°·8. The result of the experiments with this thermometer shows that as regards power of resisting compression it is fully comparable with the new instruments.

It is noticeable that the standard rose the same amount 0·3 under all pressures. This may be due to heat developed by friction or compression. Regarding it as such, the following resumé shows the effect of compression or pressure *per se*.

	Thermometer Rise due to			Tons per Inch.
	Heat and Pressure.	Heat.	Pressure.	
Standard	0·6	0·6	0·0	$2\frac{1}{2}$
1	1·5	„	0·9	„
2	1·4	„	0·8	„
3	1·7	„	1·1	„
4	1·1	„	0·5	„
5	1·3	„	0·7	„
6	1·2	„	0·6	„
Standard	0·3	0·3	0·0	„
7	1·2	„	0·9	„
8	1·2	„	0·9	„
9	1·0	„	0·7	„
10	1·2	„	0·9	„
11	0·8	„	0·5	„
12	1·2	„	0·9	„
Standard	0·2	0·2	0·0	„
73	10·7	„	10·5	„
Standard	0·3	0·3	0·0	1
19	0·5	„	0·2	„
Standard	0·3	0·3	0·0	2
19	1·6	„	1·3	„
Standard	0·3	0·3	0·0	$2\frac{1}{2}$
19	1·8	„	1·5	„

Two other thermometers were tested on the 8th of December, and the results present some features of interest.

Thermometers by Casella, Nos.		Minimum Index.		Maximum Index.		Mercury. After.	Pressure on the Square Inch.
		Before.	After.	Before.	After.		
		°	°	°	°	°	Tons.
1st Trial	Stand. 9,645	—	—	48·9	49·0	49·0	$1\frac{3}{4}$
	11,678	48·5	48·5	48·7	49·3	48·6	$1\frac{3}{4}$
	11,679	48·5	48·5	48·8	49·1	48·6	$1\frac{3}{4}$
2nd Trial	Stand. 9,645	—	—	48·4	48·5	47·6	$2\frac{1}{2}$
	11,679	48·3	47·6	48·3	49·0	47·6	$2\frac{1}{2}$
3rd Trial	Stand. 9,645	—	—	47·9	47·9	47·2	$2\frac{1}{2}$
	11,678	47·5	47·2	47·5	48·4	47·2	$2\frac{1}{2}$

—	Rise of Thermometer due to			Tons per Inch.
	Heat and Pressure.	Heat.	Pressure.	
9645	0·1	0·1	—	$1\frac{3}{4}$
11678	0·6	0·1	0·5	$1\frac{3}{4}$
11679	0·3	0·1	0·2	$1\frac{3}{4}$
9645	0·1	0·1	—	$2\frac{1}{2}$
11679	0·7	—	0·6	$2\frac{1}{2}$
9645	− 0·7	− 0·7	—	$2\frac{1}{2}$
11678	0·9	„	1·6	$2\frac{1}{2}$

It will be noticed that the change of reading of the standard thermometer was not constant, as in some of the experiments a rise of 0°·1 was observed, while in one a fall of 0°·7 was recorded. This latter result is probably due to the fact that the hydraulic press was not in very good order, so that a large quantity of water at a lower temperature than the surrounding air had to be drawn through the apparatus before the pressure began to act on the gauge.

The foregoing experiments are sufficient to show that the new instruments perform satisfactorily, and also that the original thermometers described by Admiral FitzRoy were good and trustworthy instruments in so far as regards their capability of resisting pressure.

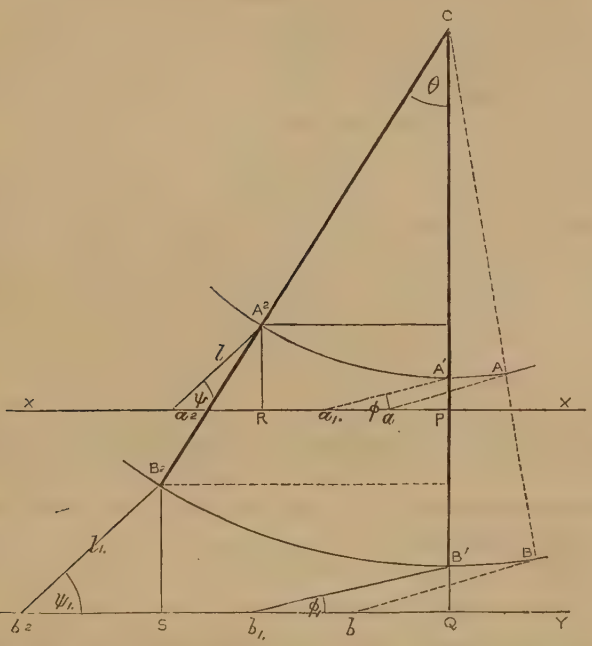
No. II.

On the Principle of the Pantagraph designed by F. Galton.

In the pantagraph I have designed to reduce the tracings of the various self-recording meteorological instruments, the reduction is effected by two separate but similar actions, in length and in breadth. One hand of the operator controls the movements from side to side of the original tracing and of the plate that receives the reduced figure; the other hand controls the movements up and down of the style that passes over the original figure, and of the point that scratches the reduced copy. In both cases the reduction is effected by means of an arm connected through links with carriages compelled to run along parallel lines.

The following analysis shows the conditions of length and position that have to be observed in making and adjusting the instrument, and I shall now restrict my explanation to this, because although the existing instrument works very satisfactorily, yet the new one (which is not yet sufficiently finished to

make a drawing from) will be its superior in range of adjustment and in many other points of detail. It is therefore advisable to delay the description until the new instrument shall have been some time at work, and its appurtenances brought into perfect order.



C A B is an arm which can be moved round C to any desired position as C A_1 B_1 or C A_2 B_2.

a is a point on a carriage that moves along a tramway, or is otherwise guided, so that it may be pushed to any desired position in the line X X, but nowhere else. It is connected with C A B by a link A*a*, and therefore assumes the positions a_1 a_2, corresponding to the positions of the arm C A_1 B_1, C A_2 B_2.

Similar arrangements are made in respect to B, and the two tramways are made parallel to one another.

Required to find the conditions, if any, that will cause the movements of *a* and *b* to bear a uniform proportion to one another.

Take C A_1 B_1 perpendicular to the tramways, and let C A_2 B_2 be any other position of the arm. Let fall the perpendiculars A_2 R and B_2 S.

Call the vertical angle θ; call the angle $A_2 a_2 P$, ψ; the angle $A_1 a_1 P$, φ; and the link A*a*, *l*.

Let the corresponding values in the arrangement connected with B, be ψ_1, φ_1, and l_1.

Now ψ is known in terms of the rest, because

(1) $l \sin \psi = C A \operatorname{versin} \theta + l \sin \varphi$, and so for ψ_1,

therefore our problem is to find the relations (if they exist) between φ and φ_1; l and l_1; C A and C B; that shall ensure the space of $a_1 a_2$ to bear a constant relation to $b_1 b_2$, = say $\frac{1}{c}$, for all values of θ.

$$a_1 a_2 = \mathrm{P}a_2 - \mathrm{P}a_1 = \mathrm{R}a_2 + \mathrm{R\,P} - \mathrm{P}a_1$$
$$b_1 b_2 = \mathrm{Q}b_2 - \mathrm{Q}b_1 = \mathrm{S}b_2 + \mathrm{S\,Q} - \mathrm{Q}b_1$$

$$\frac{a_1 a_2}{b_1 b_2} = \frac{l\cos\psi + \mathrm{C\,A}\sin\theta - l\cos\varphi}{l_1\cos\psi_1 + \mathrm{C\,B}\sin\theta - l_1\cos\varphi_1} = \frac{1}{c}$$

but from (1) $l\cos\psi = l\sqrt{1-\sin^2\psi} = \sqrt{l^2 - (l\sin\varphi + \mathrm{C\,A\,vers.}\,\theta)^2}$
and similarly for $l_1\cos\psi_1$

therefore $$\frac{\sqrt{l^2 - (l\sin\varphi + \mathrm{C\,A\,versin}\,\theta)^2} + \mathrm{C\,A}\sin\theta - l\cos\varphi}{\sqrt{l_1^2 - (l_1\sin\varphi_1 + \mathrm{C\,B\,versin}\,\theta)^2} + \mathrm{C\,B}\sin\theta - l_1\cos\varphi_1} = \frac{1}{c}$$

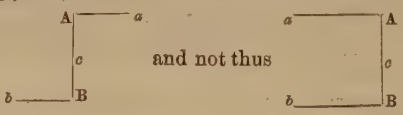
First, we see that these values can be real only so long as $l\sin\varphi + \mathrm{C\,A\,versin}\,\theta$ (or $\mathrm{A_2\,R}$) is less than l; or the distance between A and the tramway is less than the length of the link, a fact which is evident enough on inspection of the figure.

Secondly, the equation holds for the combined values

$$\varphi = \varphi_1, \frac{l}{l_1} = \frac{1}{c}, \frac{\mathrm{C\,A}}{\mathrm{C\,B}} = \frac{1}{c}, \text{ and for no other ones.}$$

We may simplify the conditions yet further, by making $\varphi = \varphi_1 = o$; that is to say, by so arranging the instrument that the link shall be parallel to the tramway when C A B is perpendicular to it; in this case the adjustment of $\frac{\mathrm{C\,A}}{\mathrm{C\,B}} = 1$ must be made by varying the position of C, while those of A and of B remain intact. This is the arrangement adopted in the pantagraphs already made.

If it be desired that $\frac{1}{c}$ should be negative, or $\frac{l}{l_1} = -\frac{1}{c}$, and $\frac{\mathrm{C\,A}}{\mathrm{C\,B}} = -\frac{1}{c}$, *i.e.*, that the movements of the arms should be in contrary directions, or that the reduction should be reversed, then $l = \frac{-l_1}{c}$ and $\mathrm{C\,A} = \frac{-\mathrm{C\,B}}{c}$ consequently both l_1 and C B having opposite signs to l and C A, the arms will lie thus :—



First adjustment:—To find the position of C so that $\frac{\mathrm{C\,A}}{\mathrm{C\,B}}$ shall $= \frac{1}{c}$

(1) When A lies between C and B

$$\frac{\mathrm{C\,A}}{\mathrm{C\,B}} = \frac{\mathrm{C\,A}}{\mathrm{C\,A} + \mathrm{A\,B}} = \frac{1}{c}, \text{ or } \mathrm{C\,A}\,(c-1) = \mathrm{A\,B},\ \mathrm{C\,A} = \frac{\mathrm{A\,B}}{c-1}$$

(2) When C lies between A and B (reverse action)

$$\frac{\mathrm{C\,A}}{\mathrm{C\,B}} = \frac{\mathrm{C\,A}}{\mathrm{A\,B} - \mathrm{A\,C}} = \frac{1}{c}, \text{ or } \mathrm{C\,A} = \frac{\mathrm{A\,B}}{c+1}.$$

Hence A B ought to be divided into some convenient number of graduations, and one that is divisible in many ways, such as 60; and

the graduations should be numbered from A towards B. The same scale of divisions should be continued on the other side of A, and those graduations should be separately numbered, beginning also from A. It is then easy to find the position of c. For example, if it be required to reduce to $\frac{1}{4}$, $c = \frac{1}{4}$.

(1) Direct reduction : Set C among the upper graduations at $\frac{60}{4-1}$ or at 20; then C A = 20, C B = C A + A B = 80, and $\frac{\text{C A}}{\text{C B}} = \frac{20}{4 \times 20}$

(2) Reverse reduction : Set C among the lower graduations at $\frac{60}{4+1}$ or at 15; then C A = 15, C B = 60, and $\frac{\text{C A}}{\text{C B}} = \frac{15}{4 \times 15}$.

Second adjustment :—To find the position of a so that $\frac{\text{A}\,a}{\text{B}\,b}$ shall $= \frac{1}{c}$, it being, at the same time, required that C B and B b shall remain intact.

Since, in the two triangles C A a, C B b, the sides C A, A a are proportional to C B, B b, and since C A a, C B b are right angles, as also the vertical angles at C are identical in case (1) and equal in case (2), it follows that the triangles are similar, and that C a b is a straight line. Consequently, after making the adjustment described in the last paragraph, of $\frac{\text{C A}}{\text{C B}} = \frac{1}{c}$, we have simply to shift a into the line C b, and the adjustment is complete.

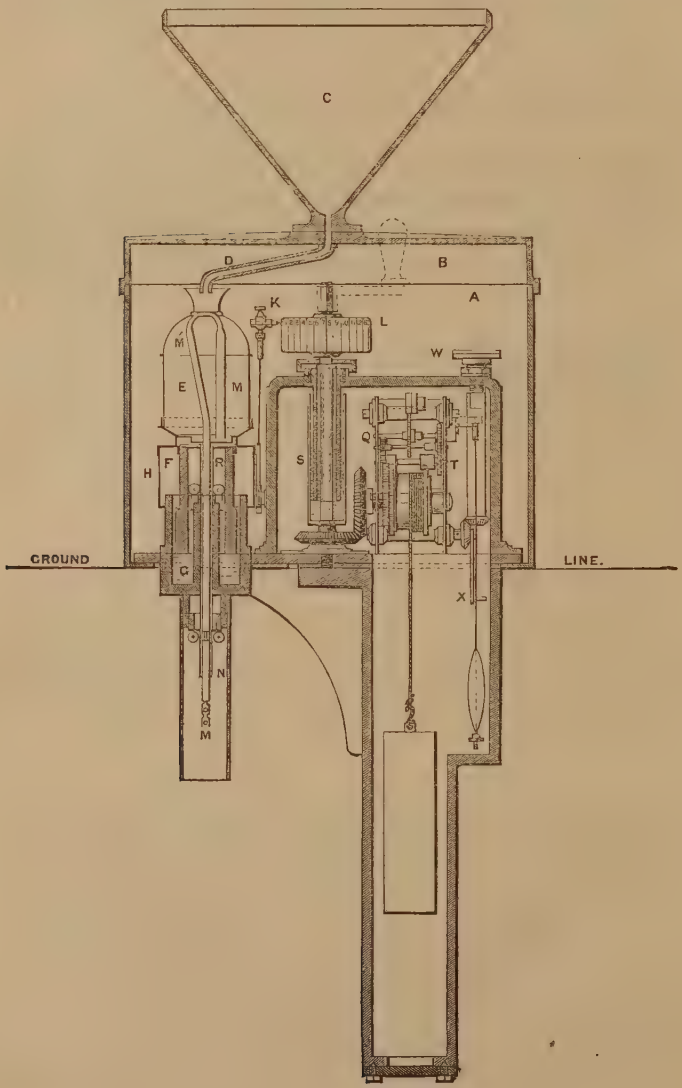
These adjustments of C and of a are mechanically effected on the same principle that is employed in shifting the centre of the well-known instrument, the proportional compasses.

FRANCIS GALTON.

No. III.

DESCRIPTION of a SELF-RECORDING RAIN-GAUGE, invented by ROBERT BECKLEY, of the Kew Observatory; made by JAMES HICKS, London.

The instrument is shown in the annexed plate, a section being given of the whole:—



(A) is a cubical box of thin cast iron, 13 inches square and 11 deep, furnished with a loosely-fitted hinged cover (B). The top of the cover is stiffened by four ribs which meet at a boss in the centre, into which the funnel (C) is screwed. The funnel is also of cast iron, but its interior surface after having been turned is enamelled, in order to prevent rusting. It is provided with a lip to retain the splashes, which is $1\frac{1}{4}$ inches deep, and is turned accurately to a circle of $11\frac{1}{4}$ inches diameter, giving an area of exposure of 100 square inches. A small aperture in the bottom of the funnel opens into a pipe (D), which conducts the water, as it is collected, into the copper bottle or receiver (E) ; this is supported by a hollow ebonite cylinder (F) floating in mercury contained in the annular vessel or cistern (G). As water enters the receiver the float descends in the cistern, displacing more mercury the further it goes ; the relation between the area of the cistern and float being so proportioned that the entrance of equal quantities of water into the vessel (E) shall cause its descent to take place through equal spaces. A cover (H) fixed to the top of the float supports on one side a spring, the upper extremity of which is adapted to hold a pencil (K) which presses against a cylinder (L) covered with waterproof paper, marking on it vertical lines as the float with the receiver rises and falls. When the level of the water in the receiver reaches the neck of the vessel (E), which has then descended to its lowest point, the syphon (M) comes into play, and rapidly discharging the water, enables the receiver to rise and resume its original position, while at the same time the pencil (K) marks a line from the bottom to the top of the cylinder. As the receiver (E) has a capacity of 20 cubic inches this occurs whenever two-tenths of an inch of rain has fallen. The syphon (M) acts on the principle of the intermittent syphon, modified and adapted so as to enable it to act accurately and with certainty in the present case. As the water enters the vessel (E) it rises in the short leg (M) of the syphon, driving the air before it through the long leg (M′ M″). This continues until it reaches the bend at the top, when it flows down the long leg and brings the syphon into play, and then runs until the vessel (E) is quite emptied (a small depression in the bottom materially assisting it), and the air can enter at the lower extremity of the short leg. The flattened contracted bend of the syphon answers the double purpose of preventing the entrapment of an air-bubble in the bend, and also of ensuring that the vessel shall always be emptied immediately the water in it arrives at a constant fixed height, while at the same time sufficient area is left not to retard the flow of water through it. In order to prevent the retention of a few drops of water by capillary action in the lower extremity of the tube several small apertures are made at M″; these, by admitting air and also allowing the lateral escape of the fluid, effectually prevent all stoppage from this cause. The action of the syphon as thus constructed is so certain and constant that it is found on experiment that if the water running out of the

receiver, when it is discharging itself, be caught in some vessel and returned to the receiver, the syphon will not commence to act until the last drop is poured back. The long leg of the syphon, on issuing from the under side of the receiver (E), passes down a brass tube (N N), through the centre of the mercury cistern guided by rollers (R) fixed to the cistern, which serve to keep the float and receiver perfectly vertical and central. In the experimental forms of this instrument some difficulty was caused by the oxidation of the surface of the mercury in the cistern preventing the moving of the float with sufficient ease and freedom; but a suggestion of Mr. Hicks completely removed this source of annoyance. It consists in pouring a small quantity of glycerine over the surface of the mercury, which by acting in a measure as a lubricating fluid causes the movement of the float to be extremely delicate. The registering part of the apparatus consists of a clock (Q) turning a cylinder (L) at an uniform rate, the pencil (K) marking on the cylinder. The pencil is a piece of ordinary black-lead pencil fixed in a holder capable of being raised and lowered by an adjusting piece. This piece is fastened to the top of a flat metal spring which terminates below in a small brass bar screwed to the cistern cap, and running up and down between two friction rollers (R) to destroy any lateral movement. The cylinder (L) fits easily on the clock spindle, but is capable of being fixed in any position on it, and the paper with which it is surrounded is divided by engraved lines into 24 hour spaces. The clock (Q) is contained in a hermetically closed case, the two places where communication takes place between the interior and exterior being guarded by mercurial stuffing boxes (S and T). S is the vertical axis supporting and giving motion to the cylinder, being driven round by the clock once every day. By means of a peculiar adaptation of the wheel-work of the clock a reversal of this motion winds it up, a handle (shown by dotted lines in the figure) being temporarily fitted on to the end of it, which is made square for that purpose. The upper bearing of this axle is formed of a tube which surrounds it loosely for the greater part of its length. This tube is again contained in a larger tube closed at the lower extremity and fastened to the axis. Mercury is then poured into the tube, half filling it, and so preventing the passage of air either into or out of the clock case, but allowing it to expand under varying changes of temperature, whilst at the same time freedom from friction of the axle in its bearings is retained. A similar arrangement at T serves to put the pendulum in motion. On turning the milled head (W) on the exterior of the case, movement is imparted by bevilled wheels to a small arm (X), which pressing against the pendulum rod forces it out of its vertical position; immediately the pressure is removed from the head (W) the arm (X) falls back to its original place by its own weight, leaving the pendulum vibrating freely. The clock case is recessed at the bottom to a sufficient depth to allow the weight to fall for one day. The clock mechanism can readily be altered so as to go

any number of days, and the time scale can be made of any desired length; but in the present instrument the time scale adopted is that chosen by the Meteorological Committee for their other self-recording instruments.

The rain-gauges supplied by the office to the telegraphic reporting stations are on Glaisher's pattern, but have been improved in construction. They are of copper, and are neither painted nor japanned. Their aperture is circular, 8 inches in diameter. The measuring glasses are of uniform pattern, and are carefully tested before issue. The receiver of the gauge is made deep enough to collect at least 8 inches of snow. It has a straight sharp edge without any flange or shoulder, so that there can be no possibility of the rain splashing in or out. The receiver fits *on* not *into* the vessel containing the collecting can, so that no water can be blown into this can at the joint.

APPENDIX.

APPENDIX I.

METEOROLOGICAL OFFICE REVENUE and EXPENDITURE ACCOUNT for the year ending 31st March 1870.

Dr. REVENUE.				CR. EXPENDITURE.						
To Parliamentary Vote	£10,000	0	0	OFFICE:						
„ Balance from year 1868–9	1,743	11	3	By Salary of Director	£800	0	0			
„ Earl of Stair	4	5	0	„ Secretary to Committee	400	0	0			
„ Proprietors and Fishermen of Downies	4	5	0	„ Two Clerks	209	7	6			
„ H. Lee & Sons	2	10	0	„ Office-keeper and Messenger	152	13	9	£1,562	1	3
„ W. W. Rundell	12	12	6	„ Rent of Office	376	17	0			
„ G. Dornbusch	10	0	0	„ Furniture and Fittings	751	15	9			
„ J. Balbirnie	4	5	0	„ Postage	90	19	7			
„ Hill & Price	5	10	0	„ Printing, &c.	44	17	3			
Rev. C. H. Griffith	2	10	0	„ Travelling Expenses	9	11	11			
Telegraph Maintenance, &c. Company	3	0	4	„ Fuel and Gas	19	19	11			
„ Rev. J. T. Waller	0	10	8	„ Attendance, Cleaning, and other Contingencies	110	2	2	1,404	3	7
„ Cork Harbour Commissioners	4	11	0	LAND METEOROLOGY:						
„ Capt. J. Wessendorff	4	5	0	By Expenses at Observatories	2,277	3	9			
„ J. G. Gamble	2	10	0	„ New Instruments for do.	519	15	2			
„ Sale of old instruments	29	6	9	„ Computations	377	6	3	3,174	5	2
„ Sale of Signal Staff	1	9	9	„ Telegrams	2,193	16	7			
„ Interest on deposit account	70	3	5	„ Inspections and other Expenses	87	9	11			
				„ Computations	357	13	7	2,639	0	1
				OCEAN METEOROLOGY:						
				By Marine Superintendent	400	0	0			
				„ Supply and Return of Instruments:						
				Admiralty	111	13	6			
				Mercantile Marine	262	8	5			
				„ Computations and Care of Instruments	864	19	7	1,639	1	6
								10,418	11	7
				„ Cash in hand	35	12	7			
				„ Advance to Valencia Observatory	50	0	0			
				„ Bank of England account	285	5	1			
				„ London and Westminster Bank	1,115	16	5	1,486	14	1
	£11,905	5	8					£11,905	5	8

Examined and compared with the vouchers and found correct.

(Signed) J. P. GASSIOT, W. SPOTTISWOODE, } Auditors.

4 May 1870.

APPENDIX II.

The number of ships supplied during the year 1869 was 54, of which number 13 belonged to the various steam-ship companies now collecting observations for this office.

The above statement does not refer to ships in the Royal Navy, all of which are supplied with meteorological instruments from the office.

In addition to the registers returned from the ships referred to, documents amounting altogether to 36 in number have been registered during the year 1869, containing observations made at the following places:—

Place.	Observer.	Nature of Observations.
Australia (west coast)	Lightkeeper	Lighthouse Registers (2 stations).
Bermuda	Dockyard Authorities	Anemometrical Records.
Brazil	Rev. C. J. Nicolay	Daily observations of barometer and thermometer, and remarks on winds and weather; years 1858–9 and 1861–2.
Ceylon (Point de Galle)	D. Blyth (Master Attendant)	Daily observations and monthly means.
Falkland Islands (Cape Pembroke)	Lightkeeper	Lighthouse register.
London (Charing Cross)	W. Bone	Daily observations (corrected and reduced) and diagrams; year 1844.

APPENDIX II.—A List of Documents received from Ships during the year 1869.

Captain's Name.	Ship.	Tons.	Owners.	Voyage.	Months of Register.
Aird, A. D.*	S.S. Nestorian	1,528	Allan Brothers, Glasgow	Five voyages to and from Quebec	3
Angel, John	Twilight	630	E. Bates, Liverpool	To and from Bombay	8
Balderston, R. I.	Bowfell	1,001	T. & R. Brocklebank, Liverpool	To and from Calcutta	6
Ballintine, W.	S.S. Peruvian	1,432	Allan Brothers, Glasgow	Seven voyages to and from Montreal	7
Beal, T. S.†	S.S. Ruahine	1,018	P. N.Z. & A. R.M. Co.	Four voyages from Sydney to Wellington and Panama, and three returns.	8

* Meteorological Register was kept chiefly by G. Scott, 1st Officer.
† " " by J. L. Stalker, 2nd Officer.

LIST of DOCUMENTS, &c.—*continued.*

Captain's Name.	Ship.	Tons.	Owners.	Voyage.	Months of Register.
Bedford, G. A.	Admiralty Survey	—		West Coast of Ireland	98
Bird, Edward	S.S. Mataura	1,114	P. N.Z. & A. R.M. Co.	Two voyages to from Panama to Wellington, then to Rio Janeiro and Southampton.	6
Blake, E. J.	Panic	449	E. Bates, Liverpool	To and from Cocoanada	8
Brooker, E. W.	Sylvia	695	H.M.S.	Surveying in Chinese Seas	7
Brooks, Samuel	S.S. City of London	1,880	W. Inman, Liverpool	Six voyages to and five from New York	4
" "	S.S. City of Brooklyn.	—	W. Inman, Liverpool	Six voyages to and from New York	4
Brown, Robert*	S.S. Moravian	1,527	Allan Brothers, Glasgow	Five voyages to and from Quebec	4
Bythesea, John†	Phœbe	2,896	H.M.S.	To Halifax, Bermuda, and West Indies	5
Campbell, C. A.; and Wilson, J. C.‡	Narcissus	2,665	H.M.S.	To, at, and from East Coast, South America.	54
Carruthers, F. P.	Minero	478	C. L. Claude, California	To Valparaiso and from Coquimbo	7
Cochrane, the Hon. A. A.	Niger	—	H.M.S.	Temperature of the sea, from England to China.	—
Cook, T.§	S.S. Russia	1,710	J. F. J. Burns, Glasgow	Two voyages to and from New York	2
Darke, J. W. B.	S.S. Kaikoura	1,068	P. N.Z. & A. R.M. Co.	Three voyages, Sydney to Wellington, Panama, and back.	7
" "	S.S. Ruahine	1,018	P. N.Z. & A. R.M. Co.	Sydney to Wellington, Rio Janeiro, and Southampton.	2
Fairlem, Henry	Ganges	1,185	Clint & Co., Liverpool	To and from Calcutta	6
Finlay, James	Duncairn	1,303	W. P. Sinclair, Liverpool	To Bombay, Akyab, and home	8
Fletcher, A. W. D.	Spiteful	1,054	H.M.S.	At Monte Video	1
Fry, Alfred	Foam	311	R. & W. King, Bristol	To, at, and from West Coast of Africa	17
Gamble, H. C.	Forfarshire	1,238	J. Morison, London	To and from Calcutta	6
Harrison, J.	S.S. Aleppo	1,399	Burns & MacIver, Liverpool	Four voyages to and from New York, viâ Boston.	4
Hassell, T. E.	Mervyn	306	R. & W. King, Bristol	To and from Cape Palmas	5

* Meteorological Register was kept chiefly by John G. Stephen, 1st Officer.
† " " " by John A. R. Petch, Navigating Lieutenant.
‡ " " " by James S. Watts, Navigating Lieutenant.
§ " " " by W. Greenwood.

Captain's Name.	Ship.	Tons.	Owners.	Voyage.	Months of Register.
Hayes, James	S.S. Cassini	687	Brazil and River Plate S.N. Co.	Two voyages to and from Monte Video, &c.	6
„ „	S.S. Ptolemy	758	Brazil and River Plate S.N. Co.	Two voyages to and from Rio Janeiro, &c.	4
„ „	„ „	758	Brazil and River Plate S.N. Co.	To and from Buenos Ayres, &c.	3
Henderson, Henry	Hope	454	J. Robinson	Shanghai to Newchwang, Swatow, Hong Kong, London.	8
Hicks, G. W.*	Indus	1,319	R. M. S. P. Co., London	To and from Bombay	7
Hillyar, F.†	Octavia	3,161	H.M.S.	Madeira to Sierra Leone, Cape of Good Hope, and Bombay.	4
Hunter, David	S.S. Alpha	514	W. Cunard, Halifax	Six voyages from Halifax to Bermuda, St. Thomas, and back.	4
„ „	S.S. Alpha	514	W. Cunard, Halifax	Eleven voyages, Halifax to Bermuda, St. Thomas, and back.	7
Irminger (Admiral)	Danish ships	—		Sea temperature between Greenland and Shetland.	—
Jones, A. A.	Victoria Nyanza	1,022	J. Prowse, Liverpool	To and from San Francisco	8
Judkins, C. H. E.‡	S.S. Scotia	2,125	Burns & MacIver, Liverpool	To and from New York	1
„ „	„ „	2,125	Burns & MacIver, Liverpool	Four voyages to and from New York	3
Le Messurier, F.	S.S. Tripoli	1,401	Burns & MacIver, Liverpool	Eight voyages to, and nine from New York	6
Lott, E. G.§	S.S. Samaria	1,695	J. Burns, Glasgow	To and from New York	1
Martyn, J. A.	S.S. Siberia	1,698	J. Burns, Glasgow	Four voyages to and from New York	4
Mayne, R. C.; C.B.‖	Nassau	695	H.M.S.	On coast of South America, thence to England.	16
Moodie, E. R.	S.S. Cuba	1,534	Burns & MacIver, Liverpool	Eight voyages to, and nine from New York	8
Moore, J. S. L.	Prince Albert	—	Hudson Bay Co.	To and from Hudson Bay	4
Morton, J. D'Arcy	Henry Bath	490	H. Bath & Son, Swansea	To and from Coquimbo	8
Mossop, Clement	Candahar	1,418	T. & R. Brocklebank, Liverpool	To and from Calcutta	7
Murphy, Michael	S.S. Siberia & Tarifa	—	Burns & MacIver	Nine voyages to and from New York, viâ Boston.	8
Nelson, J. E.	Philip Nelson	547	P. Nelson, Liverpool	To Bombay, and from Cochin	8

* Meteorological Register was kept chiefly by S. W. Hodding, 2nd Officer.
† „ „ „ by Thomas Pounds, Staff Commander.
‡ „ „ „ by W. Greenwood.
‖ „ „ „ by D. G. Tandy, Lieutenant.

List of Documents, &c.—*continued.*

Captain's Name.	Ship.	Tons.	Owners.	Voyage.	Months of Register.
Pearce, Robert*	Malabar	1,219	H. Green, London	London to Madras, Calcutta, to and at Annesley Bay.	9
Rawle, Charles	Star of the North	662	A. Pardew, Plymouth	To Bombay, Aden, Tuticorin, and home	10
Raymond, C. T.	British India	1,199	British Shipowners' Co.	To and from Bombay	7
Revett, Richard	S.S. Atrato	1,970	R. M. S. P. Co., London	Four voyages to and from Colon, &c.	8
Shaw, G.	S.S. Alpha	514	W. Cunard, Halifax	Two voyages, Halifax to Bermuda, St. Thomas, and back.	1
Smith, W. H.	S.S. Hibernian	1,392	Allan, Bros., Glasgow	Five voyages to and from Quebec	4
Spragge, Robert	Mary Hardy	495	Hardy & Sons, London	To and from Barbadoes	2
Studdert, Robert	Hotspur	1,142	T. E. Smith, Gosforth	To Calcutta, Madras, and home	9
Thompson, J. M.	British American	1,207	C. Hill, Bristol	To Monte Video, Callao, and home	7
Tucker, J. W.	John Temperley	976	J. C. Hall, Durham	London to Melbourne, Calcutta, Melbourne, Calcutta, Cochin, and back to London.	13
Tully, Thomas	Baroda	1,364	T. Brocklebank, Liverpool	To and from Calcutta	7
Vinnis, Francis	Robinson Crusoe	1,165	J. Beazley, Liverpool	To and from Bombay	7
(Unknown)	S.S. Oriental	—	P. & O. S. N. Co.	Abstract of two voyages from Bombay to Suez and back.	—
(Unknown)	S.S. Nemesis	—	P. & O. S. N. Co.	Abstract of 13 voyages from Calcutta to Suez and back.	—
(Unknown)	S.S. Nemesis	—	P. & O. S. N. Co.	Abstract of voyage from Calcutta to Bombay and back.	—
Warren, W. H. C.	Brilliant	303	C. Saunders, Liverpool	To Yokohama	4
Watson, T. O.	Peter Joynson	956	P. Joynson, Liverpool	From Calcutta	4
Watson, William	S.S. Palmyra	1,390	J. Burns, Glasgow	Eight voyages to and from New York	8
Watt, H. F.	Christabel	171	H. F. Watt, Liverpool	To St. Thomas, St. Domingo, and home	3
Wherland, F.	Galatea	1,477	S. R. Graves, Liverpool	To and from Calcutta	8
Whiteway, Lewis	Dennis Brundrit	462	P. Whiteway, Runcorn	To and from Valparaiso	7
Wight, H. P.	Gosforth	810	T. E. Smith, Gosforth	To and from Madras	7
Wood, Henry	Excelsior	494	J. Flamank, Teignmouth	To and from New Zealand	8
Woolward, Robert	S.S. Douro	1,785	R. M. S. P. Co., London	Three voyages to and from Colon, one to and from Rio Janeiro.	7
Wright, S. H.†	S.S. Rakaia	938	P. N.Z. & A. R. M. Co.	Three voyages from Panama to Wellington, Sydney, and back.	7

* Meteorological Register was kept chiefly by Henry Colston, Surgeon.
† " " T. F. Orchard.

APPENDIX III.

Instruments supplied, &c. to the Royal Navy.

	Barometers.	Aneroids.	Thermometers.			Hydrometers.
			Ordinary.	Max.	Min.	
January 1st, 1869, afloat	188	416	806	10	12	161
Issued in 1869	38	74	213	28	22	24
	226	490	1,019	38	34	185
Returned in 1869	56	111	213	31	20	42
January 1st, 1870, afloat	170	379	806	7	14	143

Instruments supplied, &c. for use at Naval Stations, and by Admiralty Surveys by Shore Parties, &c.

January 1st, 1869, in use	63	81	133	32	30	39
Issued in 1869	4	11	19	2	3	—
	67	92	152	34	33	39
Returned in 1869	14	31	55	16	14	24
January 1st, 1870, in use	53	61	97	18	19	15

Disposition of Admiralty Instruments on January 1st 1870.

	Barometers.	Aneroids.	Thermometers.			Hydrometers.
			Ordinary.	Max.	Min.	
Afloat in Royal Navy	170	379	725	7	14	143
At stations for use	53	61	97	18	19	15
In store, at M.O.	171	105	224	62	56	161
„ Chatham	2	5	18	2	2	17
„ Sheerness	14	14	33	14	13	9
„ Portsmouth	18	15	29	5	4	18
„ Devonport	7	11	23	3	4	42
„ Queenstown	1	4	6	2	2	8
„ Gibraltar	4	4	6	1	1	4
„ Malta	2	9	47	2	2	28
„ Halifax	5	5	20	—	—	4
„ Bermuda	6	7	9	1	1	16
„ Jamaica	6	4	7	2	1	8
„ Ascension*	2	4	7	—	—	—
„ Cape of Good Hope	3	9	—	—	—	16
„ Hong Kong†	10	24	45	—	—	24
„ Valparaiso‡	4	1	23	2	2	16
Total, per account	478	661	1,319	121	121	529
Lost, &c. during 1869	27	34	179	23	16	45

* No return has been made since 20th October 1868.
† No return has been made since 1st January 1868.
‡ No return has been made since 1st January 1869.

APPENDIX IV.

INSTRUMENTS supplied, &c. to the Mercantile Marine.

	Barometers.	Compasses.	Thermometers.			Hydrometers.
			Ordinary.	Max.	Min.	
January 1st, 1869, afloat -	62	12	393	—	—	254
Issued in 1869 - -	52	4	305	—	—	197
	114	16	698	—	—	451
Returned in 1869 -	45	8	268	—	—	168
January 1st, 1870, afloat -	69	8	430	—	—	283

INSTRUMENTS in use at Stations, viz., Telegraph Offices, Lighthouses, Observatories, Navigation Schools, &c.

January 1st, 1869, in use	101	7	254	40	39	55
Issued in 1869 - -	20	1	40	6	11	10
	121	8	294	46	50	65
Returned in 1869 -	27	3	70	11	14	7
January 1st, 1870, in use	94	5	224	35	36	58

DISPOSITION of Board of Trade INSTRUMENTS.

In merchant ships -	68	8	430	—	—	283
In naval ships - -	—	—	81	—	—	—
In use at stations -	94	5	224	35	36	58
In store at M.O. - -	69	36	158	7	6	72
„ Gibraltar -	—	—	12	—	—	—
At Southampton agency -	2	2	7	—	—	8
„ Liverpool „ -	10	9	33	—	—	50
„ Hull „ -	3	—	18	—	—	12
„ Aberdeen „ -	1	—	20	—	—	12
Total, 1st Jan. 1870 -	247	60	983	42	42	495
Lost, &c. during 1869	19	5	192	10	10	81

APPENDIX V.

LIST of STATIONS reporting Meteorological Observations by Telegraph to the Office, with the Observers.

Thurso*	J. Trotter	—
Wick	J. Sandison	Postmaster.
Nairn	W. D. Penny	Schoolmaster.
Aberdeen	J. Gibson	Telegraph Superintendent.
Leith	T. Bolton	Telegraph Clerk.
Shields	T. Allaway	Do.
Scarborough	F. Shaw	Do.
Yarmouth	T. Robinson	Do.
Ardrossan	W. McNeil	Do.
Greencastle	J. Kelly	Do.
Holyhead	J. Andrews	Do.
Liverpool	S. Jones	Do.
Valencia	E. O'Sullivan	Do.
Cape Clear	G. Griffin	Do.
Roche's Point	W. Kennedy	Do.
Pembroke	J. C. Walker	Do.
Penzance	J. Senior	Do.
Plymouth	W. Pinchin	Do.
Portsmouth	T. Hardy	Do.
London†	Clerks in Meteorological Office	—
Heart's Content	J. Weedon	Telegraph Superintendent.

* This station has been added since 31st December 1869.
† Reports not sent by telegraph.

APPENDIX VI.

LIST of Persons, Places, &c. to which the Daily Weather Report is supplied.

Newspapers:

Daily News.
Echo.
Express.
Globe.
*Lloyd's Shipping List.
Observer.
*Pall Mall Gazette.
Shipping and Mercantile Gazette.
Standard (Morning and Evening).
Times (1st and 2nd edition).

For Exhibition at following Seaports:

Banff.
Belfast.
Blackpool.
Buckie.
Carnarvon.
Cromer.
Cullen.
Exeter (2 copies).
Great Grimsby.
Hayle.
Hull.
*Newquay.
Port Dinorwic.
Porthcawl.
Silloth.
Teignmouth.
Ventnor.

* Added since 31st December 1869.

Societies, &c.:

Association of Underwriters, Liverpool.
Do. Lloyd's.
Calcutta, Meteorological Committee.
Patent Office, London.
*Press Association.
Royal Society.
Scottish Meteorological Society.

Individual Observers, in co-operation, &c.:

Barnes, R. H., Kensington.
Griffith, Rev. C., Strathfield Turgiss.
Hoskins, Dr. S. E., Guernsey.
Mansell, J. C., Longthorns.
Moore, Dr. J. W., Dublin.
Richards, W. H., Penzance.
Tennent, R., Edinburgh.

Foreign Places:

Christiania, Meteorological Institute.
Constantinople, Imperial Meteorological Observatory.
Florence, Ministry of Agriculture.
Hamburg, North German Ocean Observatory.
Paris, Imperial Observatory.
„ Meteorological Observatory, Montsouris.
„ Meteorological Society.
„ Ministry of Marine.
St. Petersburg, Central Physical Observatory.
Upsala, University Observatory.
Utrecht, Royal Meteorological Institute.
Vienna, Imperial Observatory.
Washington, United States Naval Observatory.

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* Added since 31st December, 1869.

APPENDIX VII.

Telegraphic Weather Intelligence.

The following stations, having been approved by the Board of Trade, are supplied with telegraphic information of storms free of expense, and "drum" signals have been furnished to most of them, all further expenses attendant on the maintenance and repair of the apparatus being borne locally. The stations are situated, 70 in England, 26 in Scotland, and 10 in Ireland.

NORTH.	WEST.	SOUTH.	EAST.
Inverness.	Douglas.	Plymouth.	Tynemouth.
Nairn.	Maryport.	Teignmouth.	Sunderland.
Burghead.	Workington.	Exeter.	Middlesborough.
Lossiemouth.	Whitehaven.	Exmouth.	Redcar.
Buckie.	Barrow.	St. Helier } Jersey.	Whitby.
Portsoy.	Morecambe.	Gorey }	Filey.
Banff.	Fleetwood.	Cowes.	Withernsea.
Fraserburgh.	Blackpool.	Ventnor.	Hull.
Peterhead.	Lytham.	Portsmouth.	Goole.
Aberdeen.	Runcorn.	Littlehampton.	Grimsby.
Stonehaven.	Southport.	Brighton.	Boston.
Montrose.	Liverpool.	Hastings.	Lynn.
Broughty Ferry.	Queensferry.	Rye.	Cromer.
Dundee.	Mostyn.		Yarmouth.
Anstruther.	Holyhead.		Ipswich.
Alloa.	Port Penrhyn.		Harwich.
Grangemouth.	Carnarvon.		Chatham.
Granton.	Aberystwith.		Sheerness.
Leith.	Milford.		Faversham.
Fisherrow.	Pembrey.		Dover.
Dunbar.	Llanelly.		
Eyemouth.	Briton Ferry.		
	Porthcawl.		
	Penarth.		
	Cardiff.		
	Newport.		
	Weston-super-Mare.		
	Burnham.		
	Ilfracombe.		
	Barnstaple.		
Glasgow.	Fremington.		
Greenock.	Instow.		
Campbelton.	*Newquay.		
Girvan.	Hayle.		
	Pendennis.		
	Penzance.		
	Falmouth.		
	Belfast.		
	Howth.		
	Kingstown.		
	Dungarvan.		
	Youghal.		
	Queenstown.		
	Cork.		
	Passage.		
	Tralee.		
	Galway.		

* This station added since 31st December 1869.

APPENDIX VIII.

Circular No. 278. M. 8542.

Telegraphic Weather Information.

Sir, Board of Trade, 30 Nov. 1867.

I am directed by the Board of Trade to acquaint you, that they have been informed by the Meteorological Committee appointed by the Royal Society, that that Committee are now prepared to issue, free of cost, to ports or fishing stations which are accessible by telegraph, notice of serious atmospheric disturbance on the coasts or in the vicinity of the British Islands.

The conditions on which these notices will be issued, are as follows, viz. :—

They will be forwarded in each case as soon as information of the atmospherical disturbance shall have been received at the Meteorological Office, and the ports or fishing stations to which they are to be sent will be determined by the Board of Trade.

When the list of places to which notices may be sent has been determined by the Board of Trade, it will rest with the Meteorological Committee, in each case of atmospheric disturbance, to send notices to all or any of those places, as the circumstances of the particular case may appear to the Meteorological Office to be advisable.

When a telegraphic notice of atmospherical disturbance is received at one of the places named on the Board of Trade list, its receipt is to be made public by hoisting one of the late Admiral FitzRoy's drums, and the drum is to remain hoisted for 36 hours after the receipt of the telegraph message containing the notice.

One telegraphic notice implies that the drum is to remain hoisted for 36 hours, and no longer.

Should the Meteorological Committee think it necessary that a drum should remain hoisted for more than 36 hours in any case, they will send messages to that effect, and continue them from day to day so long as it appears desirable, or until the storm shall have abated.

If the authorities at any port or fishing station wish to receive intelligence of atmospherical disturbances, and will undertake to hoist the drum, subject to the conditions named, and subject to such regulations or directions as may from time to time be issued by the Meteorological Office, an application should be addressed to the Secretary to the Meteorological Committee, 2, Parliament Street, Westminster, S.W.,* in order that the necessary steps may be taken to place the name of the station on the Board of Trade list, and to provide the flagstaff and drum.

It is to be understood that where the place or station can pay for a flagstaff and drum they will be expected to do so, if a staff and drum are not already provided; and that where it is made to appear to the Board of Trade that no staff and drum are provided, and that the place is too poor to bear the expense, then the cost will be defrayed by the Meteorological Office, with the sanction of the Board of Trade.

But in all cases, whether the first cost of the flagstaff and drum are or are not borne by the local authorities, the local authorities must undertake to bear all subsequent charges connected with the hoisting of the signal, and the maintenance of the signal apparatus.

The only subsequent expense that will be defrayed by the Meteorological Office will be the charge for transmission of the notices of atmospherical disturbances.

I am, &c.

T. H. Farrer.

* The present address of the office is 116, Victoria Street, Westminster, S.W.

APPENDIX IX.

List of Places supplied with Fishery Barometers.

Those supplied during the years 1867–9 are distinguished by an asterisk.

Shetland Isles.—Sandsair, Lerwick.

Orkney Isles.—Burray.

Scotland, east coast.—Stroma, Staxigoe and Elzie, Sarclet, Lybster, Portmahomack, Cromarty, Avoch, Nairn, Burghead, Portessie, Port Knockie, Portsoy,* Whitehills, Gardenstown, Rosehearty, Pitullic, Findon, Portlethen, Arbroath, Broughty Ferry, St. Andrews, Crail, Cellardyke, St. Monance,* Burntisland, Newhaven.

England, east coast.—Berwick, Beadnell, North Shields, South Shields, West Hartlepool, Staithes, Scarborough, Filey, Flamborough, Bridlington Quay, Withernsea, Hull, Lynn, Wells, Gorleston, Harwich,* Brightlingsea,* Wivenhoe,* Margate, Deal, Kingsdown, Dover.

England, south coast.—Bognor,* Portsea, St. Helens and Ventnor* (Isle of Wight), Gorey (Jersey), Poole, Weymouth, Portland, Budleigh-Salterton, Cawsand, Mevagissey, Gorranhaven, Truro, Devoran, Penrhyn, Falmouth, Newlyn, Mousehole.

England, south-west coast.—St. Ives, Hayle, Port Isaac, Boscastle,* Fremington, Burnham, Highbridge.

Wales.—Swansea, Milford.

England, north-west coast.—Fleetwood, Morecambe, Maryport.

Isle of Man.—Port St. Mary,* Peel.

Scotland, south-west coast.—Port Patrick,* Stranraer.

Ireland, east coast.—Belfast, Bangor, Strangford, Ardglass, Dundalk, Howth, Kingstown.

Ireland, south coast.—Dungarvan, Kinsale.*

Ireland, west coast.—Valencia, Dingle, Tralee, Ballina,* Killybegs.*

Ireland, north coast.—Bunbeg, Burton Port, Dunfanaghy, Rathmullen.

Scotland, west coast.—Campbeltown,* Portree (Isle of Skye), Plockton.

Hebrides, Stornoway, Cromore, Babyle, Obb, Ness.

APPENDIX X.

LIST of PERSONS in the EMPLOYMENT of the METEOROLOGICAL COMMITTEE on December 31st, 1869, with their Occupations and Amount of Salary.

Name.	Duties.	Salary. Yearly. £ s. d.	Salary. Weekly. £ s. d.
Office.			
Robert H. Scott	Director of the office	800 0 0	—
J. S. Harding, jun.	Correspondence and accounts	170 0 0	—
J. S. Harding, sen.	Copying, accounts of stores, registry of documents, &c.	—	1 18 6
T. D. Bell		—	0 15 0
Commissionaire	Messenger	—	1 1 0
Land Meteorology (*Observatories*).			
S. Jeffery	Discussion of returns from observatories, and computations.	—	3 0 0
C. E. Burton		—	1 15 0
E. Magrath		—	1 5 0
J. P. Cutts		—	0 15 0
Land Meteorology (*Telegraphy*).			
F. Gaster	Preparation of weather reports, and computations.	130 0 0	—
F. Steventon		90 0 0	—
F. Brodie		—	0 15 0
G. G. Francis		—	0 15 0
Ocean Meteorology.			
Capt. H. Toynbee	Marine Superintendent	400 0 0	—
W. Salmon	Examination of logs	220 0 0	—
R. Strachan	Care of instruments, and correspondence therewith connected	200 0 0	—
C. Harding	Examination of logs, and computations.	110 0 0	—
R. H. Curtis		90 0 0	—
J. Curtis		—	1 5 0
W. G. James		—	1 5 0
Balfour Stewart	Secretary to the Committee; Director of the Normal (Kew) Observatory	£ s. d. 400 0 0	—
Rev. Thos. Kerr	Director of Valencia Observatory	250 0 0	—

APPENDIX XI.

Donations received during the Year 1869.

Presented by Societies, Institutions, &c.

Berlin - -	K. Statistische Bureau -	Preussische Statistik, Nos. XIV. and XIX. (Monthly means of pressure, temperature, &c. for the years 1867–8. See also Dove.)
Bombay - -	Colaba Observatory -	The normal winds of Bombay.
	,, -	Solar variations of magnetic declination at Bombay.
Calcutta - -	Meteorological Office -	Reports of the Meteorological Reporter to the Government of Bengal, 1867–8 and 1868–9.
	,, -	On the origin of a cyclone.
	St. Xavier's College -	Meteorological Register, January to June 1869.
Christiania -	Norske Meteorologiske Institut.	Meteorologisk Aarbog for 1867 and 1868.
	,, -	Meteorologiske Jagttagelser paa Christiania Observatorium, 1867.
	,, -	Meteorologiske Jagttagelser i Norge, January to November 1869.
	,, -	Meteorologiske Middelelser.
	,, -	Nogle Bemærkninger om Tordenveirenes Dannelse.
Cincinnati -	Observatory - - -	Inaugural Report, 30th June 1868, and Annual Report, 1st May 1869.
Constantinople -	Observatoire Impérial Météorologique.	Résumé des Observations Météorologiques, December 1868 to October 1869.
Copenhagen -	K. Danske Videnskabernes Selskab.	Forhandlinger, Nos. 6 and 7 for 1867; 1–4 for 1868; 1 for 1869.
Dorpat - -	Kaiserliche Universität -	Meteorologische Beobachtungen; years 1867–8.
	,, -	Über die Correction der Thermometer.
Dublin - -	Trinity College - -	Observations made at the Magnetical and Meteorological Observatory, Vols. I. and II.
Edinburgh -	Scottish Meteorological Society.	Journal, Vol. II., new series, Nos. 21–24. (See also Buchan.)
Florence - -	Ministero d' Agricoltura Industria e Commercio.	Meteorologia Italiana, September 1868 to September 1869.
	,, -	Supplement to ditto, p.p. 1–80 for year 1869, except p.p. 41–48.
Greenwich -	Royal Observatory - -	Report of the Astronomer Royal to the Board of visitors, 1869.
	,, -	Magnetical and Meteorological Observations, 1867.
Hamburgh -	Norddeutsche Seewarte -	Jahres-Bericht, 1868.
	,, -	Mittheilungen, No. I., Über die wissenschaftlichen Ergebnisse der ersten deutschen Nordfahrt von 1868. Ditto, No. II., Nordwest-deutscher Wetterkalender.
	,, -	Die Seewarte und (1) das National Einkommen (2) der Suez Canal (3) ihr Verhältniss zu den Navigationsschulen.
Kew - -	Observatory - - -	Report of the Kew Committee for the year 1868–9. (See also Stewart).

Lisbon - -	Observatorio do Infante D. Luiz.	Annaes, Vol. VI., July to November 1868, Vol. VII., December to February 1869.
London - -	Admiralty (Hydrographer)	South American Pilot, Parts I. and II.
	" -	South Pacific Directory.
	" -	Tide Tables for 1869 and 1870.
	" -	Memoir of the Hydrographical Department.
	Board of Trade - -	Report of Wrecks, Casualties, &c. 1868.
	British Association -	Report for 1868.
	British Horological Institute.	Journal, Vol. XI., Nos. 125–131, Vol. XII., Nos. 132–136.
	Meteorological Society -	Proceedings, Vol. IV., Nos. 39–44.
	" -	Meteorology of England, Reports for four quarters, ended June 1869.
	Royal Astronomical Society	Monthly Notices, Vol. XXV., No. 1.
	Royal Institution - -	Proceedings, Vols. I.–IV. Vol. V., Nos. 45–50.
	Royal National Lifeboat Institution.	Journal, Vol. VII., Nos. 71–75.
	Royal Society - -	Proceedings, Vol. XVII., Nos. 106–113. Vol. XVIII., Nos. 114–115.
	" -	Catalogue of Scientific Papers, Vol. III.
	" -	Address delivered at the Anniversary Meeting, 30th November 1869, by Sir E. Sabine, K.C.B., President.
	Royal United Service Institution.	Journal, Vol. XIII., Nos. 53–55.
	(War Office) Topographical Department.	Cape of Good Hope Observations, 1841–6.
Lyons - -	Commission Hydrométrique	Rapport, 1867.
Manchester -	Literary and Philosophical Society.	Proceedings, Vols. III.–VII.
	" -	Memoirs, Vols. I–III.
Madrid - -	R. Observatorio - -	Observaciones Meteorologicas, December 1867 to November 1868.
Milan - -	R. Osservatorio di Brera -	Effemeridi Astronomiche, 1865–8.
	" -	Sulle variazioni periodiche del barometro nel clima di Milano.
Moncalieri -	Osservatorio del R. Collegio Carlo Alberto.	Bullettino Meteorologico, Vol. III., Nos. 11 and 12. Vol. IV., Nos. 1–9.
	" -	Le Aurore Polari del 1869.
Munich - -	Königliche Sternwarte -	Wochenbericht, Nos. 180–233.
New Zealand -	(?)	Meteorological Report for New Zealand, by J. Hector, Esq., M.D., F.R.S.
Oxford - -	Radcliffe Observatory -	Results of Meteorological Observations, 1864–6.
Palermo - -	R. Osservatorio - -	Bullettino Meteorologico, Vol. IV., Nos. 8–12; Vol. V., Nos. 4–8.
Paris - -	Association Scientifique de France.	Bulletin Hebdomadaire, Vols. V. and VI.
"	Ministère de la Marine -	Annales hydrographiques, 4 Quarters of 1868. 3 " 1869.
"	" "	Phares des Côtes, Nos. 216–219, 221–222.
"	Observatoire Impérial -	Atlas des Mouvements généraux de l'Atmosphère, Jan.–Juin 1865, by M. Le Verrier, President of the Association Scientifique.
"	" "	Atlas Météorologique de l'Observatoire Impérial, 1867–8, by M. Le Verrier, President of the Association Scientifique.
"	Observatoire Impérial -	Bulletin International, 1858–9. Jan. to August 1860, and year 1869.

Paris - -	Observatoire Météorologique Central de Montsouris.	Bulletin, July to December 1869.
,,	,, ,,	Des questions météorologiques qui se rattachent à celle de la création d'un Observatoire Astronomique aux environs de Paris. (See also Deville.)
,,	Service Hydrométrique du bassin de la Seine.	Observations faites du 1 Mai 1854 au 30 Avril 1855.
		Mémoire sur ,, ,,
		Note sur l'averse tombée à Paris, le 21 Mai 1857.
		Influence des forêts sur l'écoulement des eaux.
		Des grands débordements de la Seine.
		Études sur le régime des cours d'eau et les cultures.
		Résumé des observations centralisées pendant l'année 1867.
		Étude sur le régime des eaux du bassin de la Seine.
		Notice sur le régime de la pluie dans le bassin de la Seine.
		De la simultanéité des Pluies.
		Étude sur le régime des eaux du bassin de la Seine pendant les crues du mois de Septembre 1868.
		Note rectificative sur les observations pluviométriques de Chateau-Chinon.
		Carte Hydrologique et Géologique du bassin de la Seine.
		Observations faites sur les petits cours d'eau. 1 Mai 1854–30 Avril 1868.
		Observations sur les grands cours d'eau. 1 Mai 1854–30 Avril 1868.
		Observations pluviométriques, 1861–1867. 25 charts.
,,	Société Météorologique de de France.	Nouvelles Météorologiques, Vol. I., and Nos. 4–12 of Vol. II.
,,	,, ,,	Annuaire de la Société Météorologique de France, Vols. I. to XV., Vol. XVI. Feuilles 6–19.
,,	,, ,,	Annuaire Météorologique, years 1849–1852.
Philadelphia -	American Philosophical Society.	Proceedings, Vols. I.–X.; Vol. XI., No. 81.
Rome - -	Osservatorio del Collegio Romano.	Bullettino Meteorologico, Vol. VII., No. 12; Vol. VIII., Nos. 1–11.
St. Petersburg -	Central Physical Observatory.	Über das magnetische Ungewitter vom 15 und 16 April 1869.
,,	,, ,,	Notiz über die Nordlichte vom 15 und 16 April, und vom 13–14 Mai 1869.
,,	,, ,,	Annales de l'Observatoire Physique Central, 1865.
,,	,, ,,	Repertorium für Meteorologie, Bd. I., Heft I.
,,	,, ,,	Correspondance Météorologique, 1850–1 and 1861. (To complete series.)
,,	,, ,,	Comptes-Rendus Annuels, 1850–1; 1855–7; 1861–3. (To complete series.)
Stockholm -	K. Svenska, Vetenskaps Academien.	Meteorologiska Jakttagelser i Sverige.
Stonyhurst -	Observatory - - -	Results of Magnetical and Meteorological Observations, 1868.

Toronto - -	Magnetical Observatory -	Monthly Meteorological Register, January to June 1869.
,,	,, ,,	General Meteorological Register, January to June 1868.
,,	,, ,,	Meteorological Summary for 1869.
,,	,, ,,	Monthly Absolute Values of the Magnetic Elements, 1865–8 ; with means from 1841–1868.
,,	,, ,,	On the Changes of Barometric Pressure, &c., from Observations in the seven years 1860–6. (By Sir E. Sabine.)
Trieste - -	R. Academia di Commercio e Nautica.	Osservazioni Meteorologiche, January to June 1869.
Upsala - -	Observatoire - - -	Description d'un Météorographe enrégistreur, construit pour l'Observatoire d'Upsal par Dr. A. G. Theorell.
,,	,, ,,	Om organisationen af den meteorologiska oerskamhelten i Utlandet, &c., by H. H. Hildebrandsson.
Utrecht - -	K. Nederlandsch Meteor. Instituut.	Jaarboek voor 1868. Part I.
	,, -	Over de Gelijktiidige Bewegeging van Barometer en Thermometer.
Vienna - -	K. K. Centralanstalt für Meteorologie und Erdmagnetismus.	Beobachtungen, November 1868 to September 1869.
	,, -	Telegraphische Witterungsberichte, November 1868 to September 1869.
	,, -	Normale fünftägige Wärmemittel für 88 Stationen, bezogen auf dem 20 jährigen Zeitraum, 1848–67.
	,, -	Die Temperatur-Verhältnisse der Jahre 1848–63.
	,, -	Jahrbuch, Vol. IV., new series.
	Oesterreichische Gesellschaft für Meteorologie.	Zeitschrift, Vol. III., No. 24 ; Vol. IV., Nos. 1–21.
Washington -	Smithsonian Institution -	Annual Report, 1867.
	,, -	Proceedings of the National Academy of Sciences, 1866–7.
	,, -	Reports of the U.S. Coast Survey, 1858 and 1862. (To complete series).
	U. S. Naval Observatory -	November Meteors of 1868.
	,, -	Meteorological Observations, 1864 and 1866.
Zurich - -	Meteor. Centralanstalt der Schweizerischen Naturforschenden Gesellschaft.	Meteorologische Beobachtungen, December 1867 to November 1868.

Presented by the Authors.

Abbadie, M. d'	See Paris. Société Météorologique.
Abbe, L.	„ Cincinnati.
Aguilar, Sr.	„ Madrid.
Airy, G. B.	„ Greenwich.
Ballot, Dr. B.	„ Utrecht.
Belavenetz, Captn.	Russian Nautical Magazine, No. 12 for 1868, Nos. 1–10 for 1869.
Belgrand, M.	See Paris. Service Hydrométrique.
Beverley, Rev. A.	Meteorological Observations taken at Aberdeen Grammar School, 1868.
Blanford, H. F.	See Calcutta. Meteorological Office.
Bruhns, Dr. C.	Übersicht der Resultate aus den Meteor. Beobachtungen angestellt auf den K. Sächsischen Stationen, August 1868 to May 1869.
Buchan, A.	Note on the Determination of Heights, chiefly in the Interior of Continents, from Observations of Atmospheric Pressure.
„	The mean Pressure of the Atmosphere, and the prevailing winds over the Globe, Parts I. and II.
Cacciatore, Sr.	See Palermo.
Chambers, C.	„ Bombay.
Chase, Pliny E.	Tidal Rainfall of Philadelphia.
Coumbary, A.	See Constantinople.
Davis, Staff Com. J. E.	Notes on Deep Sea Soundings.
Denza, Sr.	See Moncalieri.
Deville, M. Ste. Claire	Sur les rétours périodiques des Phénomènes Météorologiques.
„	Documents relatifs aux aurores boréales. (See also Paris, Observatoire de Montsouris.)
Dove, Prof. H. W.	Über das barometrische Maximum in Januar 1869.
„	Über die nicht-periodische Veränderungen der Verbreitung der Wärme auf der Erdoberfläche. (See also Berlin.)
Freeden, Herr W. von	See Hamburg.
Hann, Herr J.	Untersuchungen über die Winde der nördlichen Hemisphäre.
Hector, J.	See New Zealand.
Hildebrandsson, M.	See Upsala.
Hoskins, Dr. S. E.	Meteorological Observations taken at Guernsey, 1864–8.
Jelinek, Dr.	See Vienna.
Johnston, K. jun.	On the annual range of Temperature over the Globe.
Kingston, Rev. G. T.	Monthly Reports on the Meteorology of Ontario, Dec. 1868 to Nov. 1869. (See also Toronto.)
Lafon, M.	See Lyons.
Lafont, Rev. E.	„ Calcutta, St. Xavier's College.
Lamont, Dr. J. von.	„ Munich.
Le Gras, Captn. A.	„ Paris, Ministère de la Marine.
Lemoine, M.	„ „ Service Hydrométrique.
Le Verrier, M.	„ „ Observatoire Impérial.
Lorenz, Dr. J.	Instruction zur Behandlung der S.R. Fluthmesser für den österreichisch-adriatischen Beobachtungs-stationen, von Dr. F. Schaub.
„	Instruction zu den Beobachtungen über Temperatur und Salzgehalt des Meeres.
„	Brakwasser-Studien an der Elbemündung.
Main, Rev. R.	See Oxford.
Margollé, M.	„ Zurcher.
Mohn, Professor H.	„ Christiania.
Montani, P.	Analyse des Périodes Barométriques.
Moyle, M. P.	Summary of the Weather at Helston (Cornwall), 1868.
Mühry, Dr. A.	Allgemeines Klima der Schweiz. Über die richtige Lage und die Theorie des Calmengürtels auf den Continenten. Über die Lehre von den Meeresströmungen. Über den Windfall des Passats bei Aden. Untersuchungen über die Theorie und das allgemeine geographische System der Winde.

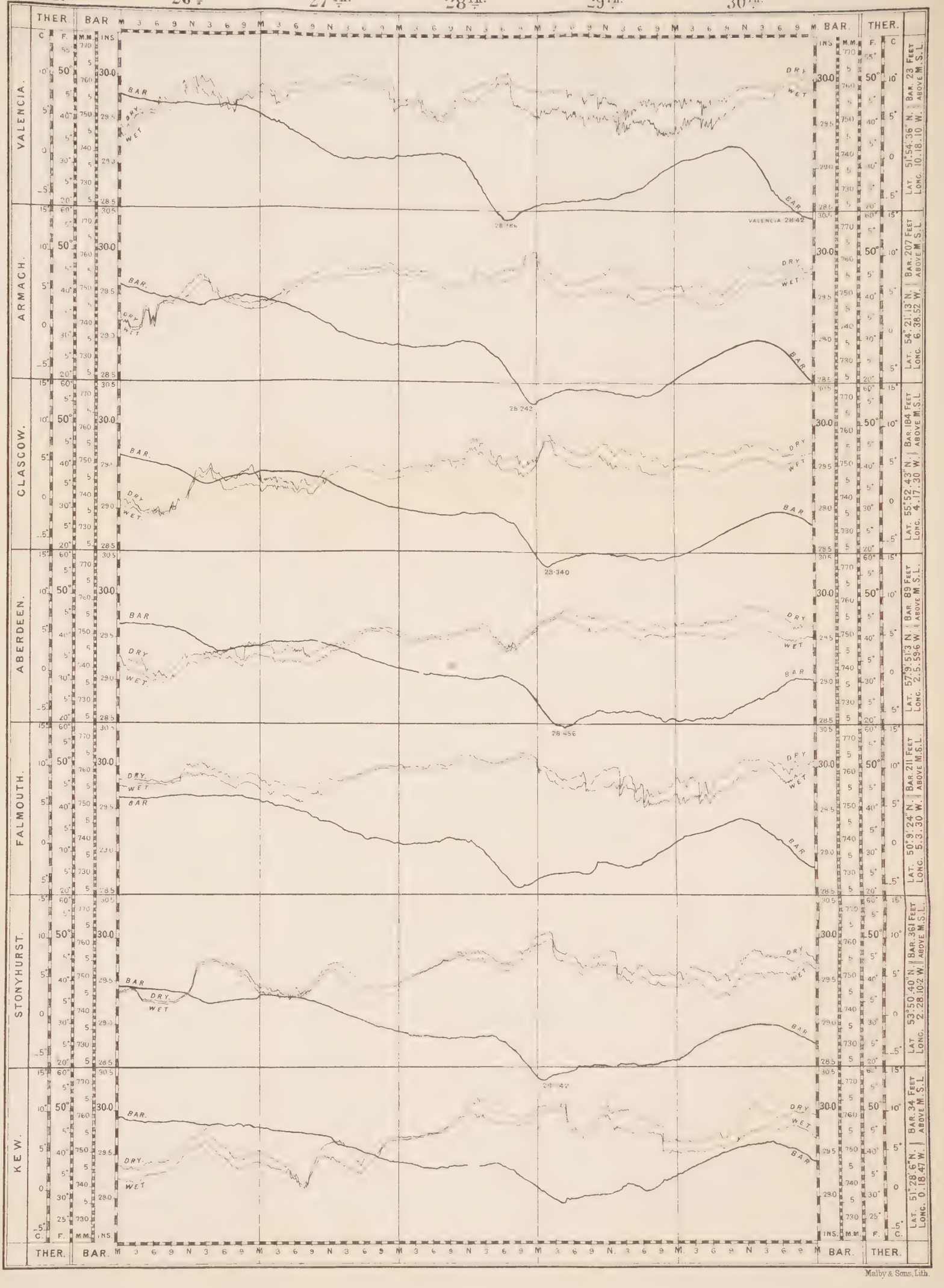
Neil, A.	Annual Report on Meteorological Observations registered in the Punjab. 1867.
Oettingen, Herr A. von	See Dorpat.
Parks, W.	On the Tides of Bombay and Kurrachee.
Perry, Rev. S. J.	See Stonyhurst.
Petermann, Dr.	Die wissenschaftlichen Ergebnisse der ersten deutschen Nordfahrt.
Prestel, Dr.	Das Gesetz der Winde.
Prettner, Dr. J.	Meteorologische Beobachtungen zu Klagenfurt. December 1868 to November 1869.
Sabine, Sir E.	Pendulum and other Experiments. (See also note at end, and London Royal Society.)
Sands, Commodore	See Washington. United States Naval Observatory.
Savy, M. B.	Densité Salure et Courants de l'océan Atlantique.
Schaub, Dr.	„ Lorenz.
Schiaparelli, Sr.	„ Milan.
Schoder, Dr. H.	Die Witterungsverhältnisse der Jahre 1865–1868, nach den Beobachtungen der württembergischen Stationen.
„	Über den jährlichen Gang des Barometers.
Secchi, Padre A.	See Rome.
Silveira, Sr. Da.	„ Lisbon.
Stewart, Dr.	Results of a Preliminary Comparison of certain Curves of the Kew and Stonyhurst declination Magnetigraphs. (See also Kew.)
„	Description of a Pendulum Electrograph now in use at the Melbourne Observatory.
„	Determination of the dip at some of the Principal Observatories in Europe.
„	On the re-appearance of some Periods of declination Disturbance at Lisbon during two, three, or several days.
„	Preliminary Investigation into the laws regulating the Peaks and Hollows exhibited in the Kew Magnetic Curves.
„	Results of Magnetical Observations made at Ascension Island, by Lieut. Rokeby, R.M.
„	Researches on Solar Physics. No. III. By Messrs. De La Rue, Stewart, and Loewy.
„	Remarks on Meteorological Reductions, with especial reference to the Element of Vapour.
Wild, M.	See St. Petersburg.
Williamson, R. S.	On the use of the Barometer on Surveys and Reconnaissances.
Wolf, Dr.	See Zurich.

Note.—The office is also indebted to Sir E. Sabine for numerous works by various authors, and for the Results of Meteorological and Magnetical Observations made at the Colonial Observatories, &c.

Plate I.

JANUARY, — 1869.

26TH. 27TH. 28TH. 29TH. 30TH.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VALENCIA.
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VALENCIA 28·842
ARMAGH.
28·242
CLASGOW.
23·340
ABERDEEN.
28·456
FALMOUTH.
STONYHURST.
29·47
KEW.
LAT. 51°54'36" N. LONG. 10.18.10 W. BAR. 23 FEET ABOVE M.S.L.
LAT. 54°.21'.13" N. LONG. 6.38.52 W. BAR. 207 FEET ABOVE M.S.L.
LAT. 55°52'.43" N. LONG. 4.17.30 W. BAR. 184 FEET ABOVE M.S.L.
LAT. 57°9'.51·3 N. LONG. 2.5.59·6 W. BAR. 89 FEET ABOVE M.S.L.
LAT. 50°.9'.24" N. LONG. 5.3.30 W. BAR. 211 FEET ABOVE M.S.L.
LAT. 53°.50'.40" N. LONG. 2.28.10·2 W. BAR. 361 FEET ABOVE M.S.L.
LAT. 51°.28'.6" N. LONG. 0.18.47 W. BAR. 34 FEET ABOVE M.S.L.

Malby & Sons, Lith.

Specimen Plate Barograms and Thermograms, (Dry & Wet.)

JANUARY, — 1869.

26TH. 27TH. 28TH. 29TH. 30TH.

VALENCIA.

HOURS OF THE DAY. M 3 6 9 N 3 6 9 M 3 6 9 N 3 6 9 M 3 6 9 N 3 6 9 M 3 6 9 N 3 6 9 M 3 6 9 N 3 6 9 M

RAINFALL FOR THE 24 HOURS COMMENCING AT 10 A.M. — 0·060 in. | 0·843 in. | 0·435 in. | 0·180 in. | 0·610 in.

GEOGRAPHICAL MILES. 0 10 20 30 40 — ENGLISH MILES. 0 10 20 30 40 50 — NORTH NW WEST SW SOUTH SE EAST NE NORTH

DIREC. VELOCITY

ARMAGH.

RAINFALL FOR THE 24 HOURS COMMENCING AT 10 A.M. — 0·022 in. | 0·147 in. | 0·319 in. | 0·038 in. | 0·254 in.

Anemograph registers differently from those at the other Observatories

GLASCOW.

RAINFALL FOR THE 24 HOURS COMMENCING AT 10 A.M. — 0·090 in. | 0·370 in. | 0·200 in. | 0·090 in. | 0·310 in.

GEOGRAPHICAL MILES. 0 10 20 30 40 — ENGLISH MILES. 0 10 20 30 40 50 — NORTH N.W WEST S.W SOUTH S.E EAST N.E NORTH

DIREC. VELOCITY

ABERDEEN.

RAINFALL FOR THE 24 HOURS COMMENCING AT 10 A.M. — *Rainfall not Registered.*

GEOGRAPHICAL MILES. 0 10 20 30 40 — ENGLISH MILES. 0 10 20 30 40 50 — NORTH NW WEST S.W SOUTH S.E EAST N.E NORTH

DIREC. VELOCITY

FALMOUTH.

RAINFALL FOR THE 24 HOURS COMMENCING AT 10 A.M. — *Rainfall not Registered.*

GEOGRAPHICAL MILES. 0 10 20 30 40 — ENGLISH MILES. 0 10 20 30 40 50 — NORTH NW WEST S.W SOUTH S.E EAST N.E NORTH

DIREC. VELOCITY

STONYHURST.

RAINFALL FOR THE 24 HOURS COMMENCING AT 10 A.M. — 0·124 in. | 0·021 in. | 0·094 in. | 0·385 in. | 0·133 in.

GEOGRAPHICAL MILES. 0 10 20 30 40 — ENGLISH MILES. 0 10 20 30 40 50 — NORTH NW WEST S.W SOUTH S.E EAST N.E NORTH

DIREC. VELOCITY

KEW.

RAINFALL FOR THE 24 HOURS COMMENCING AT 10 A.M. — — | 0·010 in. | 0·550 in. | 0·325 in. | 0·143 in.

GEOGRAPHICAL MILES. 0 10 20 30 40 — ENGLISH MILES. 0 10 20 30 40 50 — NORTH NW WEST S.W SOUTH S.E EAST N.E NORTH

DIREC. VELOCITY

M 3 6 9 N 3 6 9 M 3 6 9 N 3 6 9 M 3 6 9 N 3 6 9 M 3 6 9 N 3 6 9 M 3 6 9 N 3 6 9 M

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Specimen Plate Anemograms and Rain.

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